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ABSTRACT

This study is the second of two, the first completed in 1980 and the second in 1986, which assessed the current national incidence of child abuse and neglect, and determined how the severity, frequency, and character of child maltreatment changed in the time period between the studies. Major findings include: (1) more than one million children nationwide experienced abuse or neglect in 1986; (2) over one-half of the countable cases involved abuse and just under one-half involved neglect; (3) moderate injuries predominated, occurring in 72% of cases; (4) countable cases of maltreatment in 1986 increased 66% over their 1980 incidence, primarily reflecting a significant increase in the incidence of abuse; (5) neither emotional abuse nor neglect showed reliable changes in incidence; (6) females experienced greater abuse overall than did males; (7) the overall incidence of maltreatment increased with age; (8) there were no significant relationships between the incidence of maltreatment and a child's race/ethnicity; (9) low income was a significant risk factor for maltreatment; (10) noninvestigatory agencies such as schools recognized more than two times the number of cases than investigatory agencies such as the police did; (11) the proportion of cases known to child protective services which involved maltreatment showed no reliable changes; and (12) the number of children reported to child protective services increased nearly 57 percent. Results imply that the increase in countable cases probably reflects an increase in the likelihood that professionals will recognize maltreatment, although abused and neglected children are not more likely to appear among screened reports to child protective services. (ABL)

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STUDY FINDINGS

Study of National Incidence and Prevalence of Child Abuse and Neglect:

1988

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DEPARTMENT OF HEALTH AND HUMAN SERVICES' SUMMARY OF THE 1986 REPORT ON THE NATIONAL INCIDENCE OF CHILD ABUSE AND NEGLECT

Background

The Study of National Incidence and Prevalence of Child Abuse and Neglect, also called the second National Incidence Study (NIS-2), was commissioned by the National Center on Child Abuse and Neglect (NCCAN), Administration for Children, Youth and Families in the Office of Human Development Services, Department of Health and Human Services. It was conducted in response to a specific Congressional mandate in the Child Abuse Amendments of 1984 (P.L. 98-457). The purpose of the NIS-2 was to assess the current national incidence of child abuse and neglect, and to determine how the severity, frequency, and character of child maltreatment changed since the NIS-1, which was completed in 1980.

Design

The NIS-2 followed essentially the same design as that used in the NIS-1 study. Data were collected concerning cases of child maltreatment which were recognized and reported to the study by "community professionals" in a national probability sample of 29 counties throughout the United States. The "community professionals" who participated in the study included the local Child Protective Services (CPS) staff as well as key respondents in a variety of other non-CPS agencies (such as schools, hospitals, police departments, juvenile probation authorities, etc.). CPS provided information about all reported cases accepted for investigation during the study. Participating professionals at other agencies served as "sentinels" by remaining on the lookout during the study data period for cases meeting the study's definitions of child maltreatment.

All cases reported to the research study were assessed for their conformity to two sets of standardized definitional criteria, and only those cases which fit these criteria were considered "countable" and used as the basis of national estimates. One set corresponded identically to the definitions used in the NIS-1 and essentially reflected the number of children who experienced demonstrable harm as a result of maltreatment. Assessing the national incidence of cases countable under these standards provided a "core" or minimum estimate of the overall incidence of child maltreatment. The core estimates are comparable with the NIS-1 findings and allow us to determine whether there were any statistically significant changes in child abuse and neglect counted under those definition since 1980.

The second set of definitional standards used in the NIS-2 were broader and more inclusive. It provided a supplementary estimate which reflected the incidence of children who were endangered by maltreatment (i.e., placed at risk for harm, but not necessarily harmed yet). The second definition was in response to concerns that the NIS-1 definitions were no longer responsive to the broader definitions of P.L. 98-457, enacted since 1980, which include children threatened with harm. These data cannot be compared with 1980 data because of the more inclusive definitions.

Relationship of the National Incidence Study to Other Child Abuse and Neglect Data Sources

Although substantial numbers of abused and neglected children are recognized as such and reported to State or local Child Protective Services (CPS) agencies, reported children represent only a part of known or suspected child maltreatment.

The National Incidence Study methodology is based on a model which depicts five levels of official recognition or public awareness about abuse and neglect.

Level (1) Those children reported to CPS where the allegation of abuse and neglect is either substantiated or unsubstantiated after an investigation.

Level (2) Those children who are not known to CPS but who are known to other "investigatory" agencies, such as police, courts, or public health departments. These agencies may have overlapping or even conflicting responsibilities concerning certain situations, such as felonious assault, homicide, delinquency, dependency, domestic disputes, "children in need of control," or nutrition and hygiene problems. Although Level 2 children are, in some sense, "officially known," they are not necessarily regarded by the community as abused or neglected in the same sense as Level 1 children are, and they do not necessarily receive assistance which specifically targets the abuse or neglect problems.

Level (3) Abused and neglected children who are not known to CPS or to any Level 2 agency, but who are known to professionals in other major community institutions, such as schools, hospitals, day care centers, and social services and mental health agencies. Children may remain at this level for any number of reasons. One reason may be definitional ambiguities as to what types of cases should be reported to CPS (or to other investigatory agencies). Other reasons relate to the attitudes and assumptions of the professionals who are aware of these situations. For example, they may feel that they are in the best position to help, may not trust CPS to handle the problem appropriately, or may have apprehensions about becoming involved in an official investigation.

Level (4) Abused and neglected children who are recognized by someone outside the purview of the first three levels, such as a neighbor, another member of the family, or by one or both of the involved parties -- the perpetrator and the child. However, none of the individuals recognizing the maltreatment at this level have made it known to persons at Levels 1 through 3.

Level (5) Children who have not been recognized as abused or neglected by anyone. These are cases where the individuals involved do not regard their behaviors or experiences as child maltreatment and where the situations have not yet come to the attention of outside observers who would recognize them as such.

Since 1975, the Department has funded a data collection effort which attempts to obtain information about Level 1. Through a grant with the American Humane Association, this annual report collects data about child abuse and neglect reported to the CPS system in the State.

In addition, this study also reports the percentage each year of those reported cases which are substantiated as a result of investigation, as well as certain demographic characteristics of the maltreated child and the perpetrator. (The fact that a case is not substantiated does not always mean abuse did not occur, but rather that there may not have been enough information to establish whether it did occur). However, this data is somewhat limited in that States have different definitions of child abuse and neglect and thus collect varying types of information. Also since the information is collected on a voluntary basis, some States do not report any data.

This National Incidence Study addresses data pertaining to Levels 1 through 3. It only includes "countable' data which pertains to child abuse and neglect that is reported, or seen by some official or professional, or is reported to CPS.

At least one other national incidence study, conducted by Richard J. Gelles and Murray A. Straus, has been completed which addresses the abuse and neglect covered by Level 4. The National Institute of Mental Health largely funded the Gelles-Straus study, which was a telephone survey of two parent families with children over three years of age. Through interviews with parents it attempted to determine whether physical abuse occurred and at what levels of severity. This study originally conducted in 1975, was repeated in 1985, and provided information about patterns of violence among the categories of person interviewed. The study found a decrease in the self-reported incidence of physical abuse by parents between 1975 and 1985. To what extent this is due to an actual decline as opposed to less candid responses by parents because of the unacceptability of admitting to abusive behavior, is not known.

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Problems Arising from Conflicting Definitions of Child Abuse and Neglect

Child Protection Services is a State child welfare program. Nearly all States adhere to the definitions provided in the Child Abuse and Neglect Prevention and Treatment Act, as amended, as the basis for receipt of basic State grants. However, each State has its own definitions which, while incorporating the Federal definition, may vary in other ways from State to State. Even beyond the official definitions established by Federal and State laws, CPS agencies, professionals in schools, hospitals, mental health agencies and child care centers appear to have widely differing interpretations of these laws regarding the types and severity of child maltreatment, what needs to be reported, and how to treat it.

One of the key activities of the NIS-1 and the NIS-2 was the development of operational definitions of child maltreatment which were both clear and objective in specifying cases at the first three levels of recognition mentioned above. All of the data collected in the study were screened for conformity to these definitional standards, and only those cases which fit the standards were "countable" and used as the basis for generating incidence estimates. While these definitions of countable maltreatment have been criticized by some child advocates as being too narrow, and thus screening out some cases of abuse and neglect which these advocates believe are real, the definitions have the advantage of providing a common yardstick to measure all cases identified in each of the 29 counties. However, due to this approach, differences in definitions of child abuse and neglect in State law and as used in this study, "countable" cases under demonstrable harm do not include all cases "substantiated" upon investigation by local CPS; but "countable" cases under the revised definitions do include all cases substantiated upon investigation by CPS. Therefore, these data cannot be compared directly with reports from the American Humane Association which only summarize numbers of child abuse and neglect cases reported to and investigated by CPS.

The incidence of child abuse and neglect discussed in the study is that which is recognized by professionals in various community agencies and was compiled by using a standard set of definitions. It does not include all maltreatment of children at the hands of their parents and caretakers.

While the issues regarding definition do make it difficult to compare different types of studies of incidence and annual occurrence of child abuse and neglect, it is interesting to note that the findings of the NIS-1 and NIS-2 and the annual data collection done by the American Humane Association on reports of child abuse and neglect are, to a great extent, comparable in their findings.

Summary of Key Findings

National Incidence

Current national (countable) child abuse and neglect as seen by study respondents:

- In 1986, an estimated 16.3 children per 1,000 or a total of more than one million children nationwide experienced abuse or neglect in 1986 which met the original standardized study definitions of maltreatment.
- Under the revised expanded definitions, an estimated 25.2 children per 1,000 or a total of more than one and one-half million children nationwide experienced abuse or neglect in 1986.

Changes Since 1980 Using Original Definition of Demonstrable Harm

- Countable cases of maltreatment which have come to the attention of survey respondents increased significantly (66%) over their 1980 incidence rate for a total of 1,025,900 children. The 462,000 increase in countable cases primarily reflected a significant increase of 74% in the incidence of abuse.
- Among the abuse cases, there were significant rises in the incidence of physical and sexual abuse, with physical abuse increasing by 58% and sexual abuse occurring at more than triple its 1980 rate in 1986.
- The only significant change in level of maltreatment-related injuries occurred in the category of moderate injury, which showed an 89% increase in its rate of incidence, which is almost double that of the 1980 study.
- Neither emotional abuse nor any form of neglect showed reliable changes in incidence rate since the earlier study.

Findings of the 1986 Study Using Expanded Definitions

Distribution of child maltreatment by type--

- The majority of cases encompassing the expanded definitions (63%) involved neglect, and fewer than half (43%) involving abuse. There were 15.9 countable neglected children per 1,000 numbering 1,003,600 children nationwide, there were 10.7 abused children per 1,000 representing 675,000 children nationwide.

- The most frequent type of abuse was physical, followed by emotional abuse and then by sexual abuse, with incidence rates of 5.7, 3.4, and 2.5 children per 1,000, respectively.

- Physical neglect was by far the most frequent form of neglect, followed by educational neglect, and then emotional neglect, with incidence rates of 9.1, 4.6 and 3.5 children per 1,000 respectively.

- Moderate injuries predominated, occurring in 60% of the countable cases; these were followed in frequency by children believed to be endangered by the maltreatment they experienced (19%) then by probable injuries (11%), serious injuries (10%), and fatalities (0.1%).

Recognition and reporting patterns--

- Noninvestigatory agencies (which included schools, hospitals, social services, and mental health) recognized more than fivetimes the number of children victims than did investigatory agencies (probation/courts, police/sheriff, and public health).

- Of the cases countable under original study definitions, only 40% or 6.5 children per 1,000, were known to CPS through official reports.

- Among all cases which involved maltreatment, the proportion that was known to CPS showed no statistically reliable changes since 1980.

- Of all the cases which had been recognized by agencies of the types included in the study, only 31% had been reported to and accepted by CPS; this was not significantly different from the 21% that had been known to CPS in the 1980 study.

- About 44% of the cases which investigatory agencies recognized were among official, CPS reports, whereas this statistic was estimated to be only 28% for the noninvestigatory agencies. For revised definitional standards, the corresponding estimates were 49% and 28%, respectively.

- Using the original study definitions, the proportion of unsubstantiated CPS cases which were countable under the original study definitions increased slightly but significantly since 1980, raising some concern about an increasing tendency to exclude cases which in the past would have received intervention and services.

Implications to This Study and Related Departmental Efforts

The NIS-2 Study indicates that the increase in incidence of child abuse and neglect between 1980 and 1986 is probably due more to an increase in the recognition of child maltreatment by community professionals than it is due to an increase in the actual occurrence of maltreatment. Two observations suggest that greater recognition of previously undetected cases may have played an important role in this increase: the emphasis of the 1980's on community awareness of the existence of abuse and neglect as well as the need to report suspected maltreatment, and the fact that the greatest increase was in moderate abuse. Recognition of suspected child sexual abuse is particularly increasing, which undoubtedly is due to the greater community awareness of this problem.

Along with the annual data collection on reporting published by the American Humane Association, NIS-2 confirms that the number of suspected child maltreatment cases being reported to CPS has increased steadily. On the other hand, the study points out two interesting pehnomena concerning reporting. First, although more professionals are recognizing child maltreatment, they are not necessarily reporting it to CPS. Second, there are many suspected cases reported to CPS which, after investigation, are not substantiated.

The study also highlights problems arising as a result of multiple and overlapping definitions of child abuse and neglect. Although there is a core definition of child abuse and neglect which is set by the Federal legislation and which states must incorporate into State law in order to receive Federal funds, there is further variance among State definitions. In addition, the practice of professional groups in identifying child maltreatment using these definitions is also varied.

The Department has a number of efforts already underway to address many of the issues which arise from the increased reporting of child maltreatment. For example, NCCAN has funded a research study to examine how screening practices, which are employed to determine which cases should be investigated, are being implemented by CPS staff; co-sponsored, with the American Bar Association and the American Enterprise Institute, a consensus building symposium of child maltreatment professionals to address child abuse and neglect reporting and investigation policies; and is conducting research on some widely used CPS risk assessment models to determine how successfully they are differentiating those children who are most endangered.

The Department has funded many efforts to respond to growing awareness of child sexual abuse and the increase in the number of substantiated cases. Two recently completed studies address sexual abuse in day care settings and sexual abuse allegations in custody disputes. We have also funded a series of projects to develop, demonstrate and study the effects of school-based prevention programs designed to help children defend themselves against sexual victimization, as well as research studies to examine issues of interviewing children who are victims of sexual abuse. Currently, we are considering applications for demonstrations of treatment approaches for intrafamilial child sexual abuse, as well as services for families who adopt children who have been sexually abused.

The 1986 Incidence Study data will be used for a number of secondary analyses by the Department, including:

- an examination of the impact of educational neglect on the total incidence of child maltreatment, and whether there is a correlation between educational neglect and other forms of child maltreatment;
- an analysis of perpetrators to determine whether we can develop more precise descriptive predictors of perpetrators; and
- an analysis of reporting practices, to determine how various professional groups of mandated reporters are carrying out this responsibility.

The public-use data tapes are available for duplication from the National Clearinghouse on Child Abuse and Neglect, for other interested researchers.

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The Study of National Incidence and Prevalence of Child Abuse and Neglect was designed and conducted by Westat, Inc., under the sponsorship and direction of the National Center on Child Abuse and Neglect (NCCAN). Westat staff and consultants whose time and expertise contributed to the success of this study are listed below.

This study would not have been possible without the support of a great many organizations, agencies, and individuals. The Westat team is particularly indebted to NCCAN for critical help and support throughout the study. Special thanks are also extended to the hundreds of agencies and individual caseworkers, teachers, police officers, social workers, probation officers, nurses, and other professionals in the study counties who contributed their enthusiastic support and much of their time in the effort to accurately assess the incidence, nature, and distribution of child abuse and neglect in the U.S.

WESTAT PROJECT STAFF AND CONSULTANTS

Corporate Officer-in-Charge
R. Beatty

Project Directors
K. Burgdorf (Design Phase)
A. Sedlak (Implementation and Analysis)

Field Directors
R. Patchen (Agency Selection)
E. Alldredge (Recruitment and Data Collection)
Assistant: J. Lynch

Agency Recruitment
R. Cuellar, J. Poulin, J. Warren, C. Cain, N. Lutz, R. Armendariz, M. Goldstein

Data Management, Preparation, Assessment
M. Feinstein, J. Poulin, V. Hudock, T. Cappezi, F. Horlick, P. Bingham, L. Kreig

Statisticians
E. Bryant & J. Greenblat (Sampling)
K. Rust (Weighting and Estimation)

Computer Processing
J. Brown, B. Reed, H. Goksel (Systems Design)
R. McEntire, S. Miller (Programming)

Consultants
G. Hotaling, R. Herrenkohl (Interview Design)
L. Keil (Coordinator Training)
K. McPherson (Report Preparation)
(Child Support Component): J. McFarland,
American Bar Association,
National Center on State Courts

EXECUTIVE SUMMARY

The Study of National Incidence and Prevalence of Child Abuse and Neglect, also called the second National Incidence Study (NIS-2), was conducted in response to a specific Congressional mandate given in the Child Abuse Amendments of 1984 (P.L. 98-457). The purpose of the NIS-2 was to assess the current national incidence of child abuse and neglect, and to determine how the severity, frequency, and character of child maltreatment changed since the NIS-1.

The NIS-2 represents a follow-up to the NIS-1, completed in 1980, and it followed essentially the same design as that earlier study. Data were collected concerning cases of child maltreatment which were recognized and reported to the study by "community professionals" in a national probability sample of 29 counties throughout the U.S. The "community professionals" who participated in the study included the local Child Protective Services (CPS) staff as well as key respondents in a variety of other non-CPS agencies (such as schools, hospitals, police departments, juvenile probation authorities, etc.). CPS provided information about all reported cases accepted for investigation during the study. Participating professionals at other agencies served as "sentinels" by remaining on the lookout during the study data period for cases meeting the study's definitions of child maltreatment.

All cases reported to the study were assessed for their conformity to a set of standardized definitional criteria, and only those cases which fit the standards were considered "countable" and used as the basis of national estimates. The NIS-2 used two sets of definitional standards of abuse and neglect. One set corresponded identically to the definitions used in the NIS-1 and essentially reflected the numbers of children who experienced demonstrable harm as a result of maltreatment. Assessing the national incidence of cases countable under these standards provided a "core" or minimum estimate of the overall incidence of child maltreatment. The second set of definitional standards used in the NIS-2 was broader, or more inclusive. It provided a supplementary estimate which reflected the incidence of children who were endangered by maltreatment (i.e., placed at risk for harm, but not necessarily harmed yet). The core estimates were able to be compared with the NIS-1 findings to determine whether there were any statistically significant changes in incidence since 1980. The supplementary estimates

indicated the potential magnitude of the problem of abuse and neglect as perceived by community professionals.

The major objectives of the NIS-2 were to

- estimate the national incidence/prevalence of child abuse and neglect;
- determine the distribution and severity of child abuse and neglect;
- assess changes since the NIS-1 in the frequency, severity, and character of maltreatment;
- identify the relationship between the incidence of child abuse and neglect and child, family, and county characteristics; and
- determine the proportion of recognized child maltreatment known to CPS through official reports and the reporting rates for recognized cases by different types of agencies.

Key findings related to each of these objectives are as follows:

Current national incidence of countable child abuse and neglect--

- In 1986, an estimated 16.3 children per 1,000 or a total of more than one million children nationwide experienced abuse or neglect in 1986 which met the original standardized study definitions of maltreatment.
- Under the revised definitions, an estimated 25.2 children per 1,000 or a total of more than one and one-half million children nationwide experienced abuse or neglect in 1986.

Distribution of child maltreatment by type--

- The majority of cases countable under the original definitions (56%) involved abuse, and just under half (48%) involved neglect. Abused children represented an incidence rate of 9.2 per 1,000 and numbered about 580,400; there were 7.9 neglected children per 1,000 in 1986, representing about 498,000 children nationwide. Estimated incidence of the subcategories of abuse and of neglect were also determined:
    - The most frequent category of abuse was physical, followed by emotional abuse and then by sexual abuse, with incidence rates of 4.9, 2.8, and 2.2 children per 1,000, respectively.
    - The frequency ranking of the subcategories of neglect was educational, physical, and emotional, with incidence rates of 4.6, 2.9, and 0.8 children per 1,000, respectively.

- The majority of cases countable under the revised definitions (63%) involved neglect, and fewer than half (43%) involved abuse, reversing the pattern found under the original definitions. There were 15.9 countable neglected children per 1,000, numbering 1,003,600 children nationwide, there were 10.7 abused children per 1,000, representing 675,000 children nationwide. Estimates for the subcategories of abuse and of neglect under the revised definitions were--
    - The most frequent type of abuse was physical, followed by emotional abuse and then by sexual abuse, with incidence rates of 5.7, 3.4, and 2.5 children per 1,000, respectively;
    - The frequency ranking of the subcategories of neglect differed from the pattern obtained under the original definitions. Using the revised definitions, physical neglect was by far the most frequent form of neglect, followed by educational neglect, and then emotional neglect, with incidence rates of 9.1, 4.6, and 3.5 children per 1,000 respectively.

Severity of injuries/impairments from countable maltreatment--

- Among cases countable under the original definitions, moderate injuries predominated, occurring in 72% of the countable cases; these were followed in frequency by serious injuries (15%), probable injuries (12%), and fatalities (0.1%).
- Among cases countable by revised standards, moderate injuries also predominated, occurring in 60% of the countable cases; these were followed in frequency by children believed to be endangered by the maltreatment they experienced (19%), then by probable injuries (11%), serious injuries (10%), and fatalities (0.1%).

Changes since 1980 in incidence (under original definitions)--

- Countable cases of maltreatment increased significantly (by 66%) over their 1980 incidence rate.
- The increase in countable cases primarily reflected a significant increase (of 74%) in the incidence of abuse.
- Among the abuse cases, there were significant rises in the incidence of physical and sexual abuse, with physical abuse increasing by 58% and sexual abuse occurring at more than triple its 1980 rate in 1986.
- Neither emotional abuse nor any form of neglect showed reliable changes in incidence rate since the earlier study.
- The only significant change in level of maltreatment-related injuries occurred in the category of moderate injury, which showed an 89% increase in its rate of incidence since the 1980 study. This suggested that the overall increase in countable cases of maltreatment may have largely been due to an increased

likelihood that professionals will recognize maltreatment, rather than to any increase in incidence per se.

Child, family, and county characteristics[*] related to incidence, type, or severity of maltreatment--

Child's Sex:

Under both original and revised definitions, females experienced more abuse overall than did males and this reflected primarily their greater susceptibility to being sexually abused. They were also more likely to experience "probable" injury/impairment in comparison to males. Sex of child did not relate to any of the changes observed between 1980 and 1986 study findings.

Child's Age:

Under original definitions, the overall incidence of maltreatment increased with age, and this was reflected in both abuse and neglect. Within abuse, the age-related increase in maltreatment appeared for all subcategories of abuse. Within neglect, the increase was localized to the area of educational neglect. With the revised definitions, abuse, specifically physical abuse, did positively correlate with age. Although neglect under revised definitions had no overall association with age, two of the subcategories of neglect did relate to age: educational neglect and emotional neglect. Again, children were at greater risk for these forms of maltreatment with increasing age.

Under both sets of definitions, fatal and moderate injuries showed age relationships, but of reversed patterns: fatalities were more numerous among the younger children, whereas moderate injuries were more prevalent among older age brackets. When the younger children were maltreated, however, it resulted in more serious injuries, perhaps due to their greater physical fragility in comparison to older children.

The 1980-1986 changes in the incidence of abuse and of two of its subcategories (physical and sexual) proved to have occurred disproportionately among the older age groups. Successive age groups generally showed progressively larger increases in the incidence of abuse over the 1980 levels. The fact that the relationship between maltreatment and age changed in these respects since 1980 implies that age may be more related to the recognition of physical and sexual abuse than to their actual occurrence.

Child's Race/Ethnicity:

There were *no* significant relationships between the incidence of maltreatment and a child's race/ethnicity.

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[*] In addition to the types of characteristics reported on here, the Congressional mandate also required that the study examine the relationship between child maltreatment and the nonpayment of child support. Because the kinds of agency respondents recruited in the NIS design generally had no information on this point, a separate study component was designed and implemented to address this question. That study, together with its findings, is the subject of a separate report (Report on Nonpayment of Child Support and Child Maltreatment).

Family Income:

Low income was a significant risk factor for child maltreatment under the both sets of definitions. Children from families whose 1986 income was less than $15,000 experienced substantially more maltreatment in all categories compared to those from families earning $15,000 or more. There were also more frequent injury/impairments at every level among the lower income children.

Family Size:

Although family size made no difference for the incidence of maltreatment under the original definitions, it did affect estimates under the revised definitions. Children in families with four or more children showed higher rates of maltreatment on a variety of measures, especially in the areas of physical abuse and physical neglect. They were also more likely to be regarded as endangered--a fact which was thought to possibly be the basis for all the other differences they exhibited. That is, greater rates of perceived endangerment for children in the larger families probably resulted in generally higher rates of countable cases for these children, overall.

County Metropolitan Status (Metrostatus):

The metrostatus of the county had no reliable impact on the incidence of maltreatment according to any measure of type or severity. County metrostatus was related to the size of the 1980-1986 increases in incidence, but there was some question about the reliability of this finding.

Recognition and reporting patterns--

Recognition:

- Noninvestigatory agencies (which included schools, hospitals, social services, and mental health) recognized more than two times the number of children countable under original definitions recognized by investigatory agencies (probation/courts, police/sheriff, and public health).
- Among investigatory agencies, police/sheriff's departments recognized the greatest number of children countable by original definitions (an estimated 96,700 nationwide); probation/courts and public health departments did not differ in their recognition of maltreated children.
- Among noninvestigatory agencies, the ordering of the different types of agencies according to the numbers of children (countable by original definitions) they recognized was: schools > social services = hospitals > daycare centers = mental health agencies.
- The different agency categories showed the same relative patterns of recognition for cases defined by revised definitions as they had when cases were defined by the original standards.

Reporting:

- Of the cases countable under original study definitions, only 40%, or 6.5 children per 1,000, were known to CPS through official screened-in reports. Of the cases countable under revised definitions, 46%, had been reported to CPS and screened-in by that agency.

- Among all cases which involved maltreatment countable by original standards, the proportion that was known to CPS showed no statistically reliable changes since 1980.

- Of all the cases countable under original definitions which had been recognized by agencies of the types included in the study, only 31% had been reported to and accepted by CPS; this was not significantly different from the 21% that had been known to CPS in the 1980 study. The comparable figure for cases countable under revised definitions was 33%.

- About 44% of the cases countable under original definitions which investigatory agencies recognized were among official, screened-in CPS reports, whereas this statistic was estimated to be only 28% for the noninvestigatory agencies. For revised definitional standards, the corresponding estimates were 49% and 28%, respectively.

Screened-in CPS Reports--

- The number of children reported to CPS increased nearly 57% since 1980. In 1986, CPS received reports concerning nearly one and two-thirds million children.

- 25% of all the cases in screened-in CPS reports were countable under original study definitions; about 44% of the children reported to and screened-in CPS were countable under revised study definitions.

- A significantly greater proportion of cases reported to (and screened-in by) CPS were countable in 1986 than had been countable in 1980 (i.e., 25% vs. 19%), indicating that cases are now selected into CPS by more stringent criteria.

- In 1986, CPS either considered indicated or officially substantiated about 53% of the cases for which it received and investigated reports. This reflected a significant increase from the 43% of screened-in cases which had been substantiated/indicated in 1980.

- An estimated 39% of all cases substantiated or indicated by CPS were countable under the original study definitions; an estimated 73% of all cases substantiated or indicated by CPS were countable by revised study standards, reflecting the impact of the definition rule that considered all officially substantiated cases as automatically meeting the revised harm requirement.

- The proportion of unfounded CPS cases which were countable under the original study definitions increased slightly but significantly since 1980, raising some concern about an increasing tendency to exclude cases which in the past would have received intervention and services.

Implications of the study. The following implications of these findings were identified:

- The increase in countable cases since 1980 probably reflected an increase in the likelihood that professionals will recognize maltreatment rather than an increase in the actual occurrence of maltreatment (i.e., in incidence per se). Potential reporters have become better attuned to the cues of maltreatment--particularly to cues concerning physical and sexual abuse, to cases involving moderate injuries, and especially for the older children. (There is also some suggestion that recognition gains in rural areas may have lagged behind those in the more metropolitan locations).

- Although there has been an increase in the likelihood that abused and neglected children will be recognized, these children are not reliably more likely to appear among the screened-in reports to CPS. This may be the fault of those who recognize maltreatment not submitting reports to CPS, or it may be due to CPS screening out cases. These alternative explanations have different policy implications:

    - If potential reporters are not reporting, it means that it has not been enough to merely increase their recognition of maltreated children. Reporting behaviors themselves must be addressed--as by conveying the beneficial results of CPS involvement.

    - If due to CPS screening out reported cases, it means that CPS resources provide insufficient support for the current high rate of recognition of maltreatment, which may jeopardize the gains in recognition that have been made thus far.

- The fact that a significantly greater proportion of reported children are now officially substantiated/indicated implies that there is now greater selectivity of cases into CPS, which is most likely due to the use of more stringent screening standards.

- The finding that a significantly greater proportion of the set of unfounded CPS cases were cases which were countable by the study's original standards indicates that some of the children who would, in the past, have had their cases substantiated/indicated (and possibly received services as a result) are now excluded as unfounded.

1. INTRODUCTION

This is the final report in a series of three major reports on the 1986 Study of National Incidence and Prevalence of Child Abuse and Neglect. It begins with an overview of the background and methods but its principal focus is upon the study findings. Readers interested in further detail concerning the data collection or analysis are referred to the prior reports in the sequence.[1]

This introductory chapter offers a brief historical perspective and a summary of the study's primary objectives. Chapter 2 summarizes the methodology, including the conceptual model which guided the study design, the design itself, the definitions of maltreatment, and important aspects of the methods of data collection. Chapter 3 presents estimates of the overall incidence of child maltreatment, of the different types of abuse and neglect, and of the severity of maltreatment. Chapter 4 clarifies the definitions on which the overall estimates were based and provides incidence estimates for each of the specific forms of abuse and neglect. In Chapter 5, relationships between child abuse and neglect and various child, family, and county characteristics are examined. Chapter 6 discusses patterns in the recognition and reporting of child maltreatment. Finally, Chapter 7 summarizes key findings and discusses their implications.

1.2 Historical Background

Federal involvement in addressing the problems of child abuse and neglect dates from 1935, when the Social Security Act first funded public welfare services "for the protection and care of homeless, dependent and neglected children and children in danger of becoming delinquents."[2] It was not until the mid-1960's, however, that the first state laws were enacted mandating reporting to public agencies of suspected cases of child abuse and neglect and offering reporters protection from retaliatory litigation (e.g., slander suits, suits alleging breach of confidentiality). Between 1963 and 1966, 49 states enacted such reporting laws.[3]

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[1] Previous reports were the Report on Data Collection and the Report on Data Processing and Analysis. Readers can obtain copies of these reports from the Clearinghouse on Child Abuse and Neglect Information, 8201 Greensboro Dr., McLean, VA 22102. (703) 821-2086.

[2] Child Welfare Strategy in the Coming Years, U.S. Children's Bureau, 1978, DHEW Publication No. (DHDS) 78-30158, p. 5.

In the early 1970's, with the awakening of public concern about child abuse and neglect, questions arose about both the overall magnitude of the problems of child abuse and neglect in the United States and the adequacy of existing mechanisms for the identification and protection of abused and neglected children. A series of hearings on these subjects, held by the Senate Subcommittee on Children and Youth in 1973, resulted in the passage of P.L. 93-247, the Child Abuse Prevention and Treatment Act, which was signed into law in early 1974.[4] The Act created the National Center on Child Abuse and Neglect (NCCAN), which was placed within the Children's Bureau of the (then entitled) Department of Health, Education and Welfare (HEW). The Center was to support state and local efforts for the prevention and treatment of child abuse and neglect. The Act specifically mandated the Secretary of HEW, through NCCAN, to "make a full and complete study and investigation of the national incidence of child abuse and neglect, including a determination of the extent to which incidents of child abuse and neglect are increasing in number or severity" (Section 2(b)(6)).

To respond to this mandate, NCCAN awarded a contract in 1976 for the design and implementation of the first national study of the incidence and severity of child abuse and neglect.[5] After two years of design and pretest work, the first National Incidence Study (the

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[3] Sussman, A. and Cohen, S., Reporting Child Abuse and Neglect: Guidelines for Legislation. Ballinger: Cambridge, Mass., 1975.

[4] Child Abuse Prevention and Treatment Act, 1973, S. 1191, Parts 1 and 2. U.S. Congress, Senate Committee on Labor and Public Welfare, Subcommittee on Children and Youth, 93rd Congress, March 26, 27, 31, April 24. Washington, D.C.: U.S. Government Printing Office, 1973. The Act was subsequently amended in 1978 and 1984.

[5] This had been preceded by a feasibility study in 1975.

NIS-1)[6] was conducted in 1979-80. The NIS-1 was the first large-scale, comprehensive research on this important subject.[7]

The NIS-1 collected data concerning cases of child maltreatment which were recognized and reported to the study by "community professionals" in a probability sample of 26 counties throughout the U.S. The "community professionals" who participated in the study included the local Child Protective Services (CPS) staff as well as key respondents in a variety of other non-CPS agencies (such as schools, hospitals, police departments, juvenile probation authorities, etc.). Cases reported to the study were assessed for their conformity to a set of standardized definitional criteria, and only those cases which fit the standards were considered "countable" and used as the basis of national estimates.

The NIS-1 provided first-time national estimates of the incidence, severity, and demographic/geographic distribution of recognized child abuse and neglect in the U.S. An estimated 625,100 children under age 18 nationwide were found to have experienced child abuse and/or neglect meeting the study definitions during the 12-month period from the second half of 1979 through the first half of 1980.[8] A secondary, but vitally important, finding of the NIS-1 was that two-thirds of the countable[9] abuse and neglect cases identified by that study had *not* been reported to CPS.[10] In light of this, it was clear that reliable estimates regarding the full scope of child maltreatment could not be derived solely from information officially reported to and recorded by state and local CPS agencies.

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[6] Officially titled the National Study of the Incidence and Severity of Child Abuse and Neglect.

[7] The findings of two other large-scale research efforts were available, but these had been less comprehensive in their topical focus on the issue of child maltreatment. The American Humane Association's Child Abuse and Neglect Reporting Study had been underway since 1976. In that study, AHA compiles statistics on the number and characteristics of cases in CPS caseloads. The NIS-1 methodology goes well beyond reports to CPS. In 1976, Straus, Gelles, and Steinmetz conducted a survey of a national sample of households, which they published in 1980 (*Behind Closed Doors: Violence in the American Family*, Garden City, NY: Anchor). Their interview focused on violence, and so provided information only covering physical abuse. The NIS methodology encompasses all forms of child maltreatment.

[8] The original publication of the NIS-1 findings placed the estimate at 652,000. The estimate given in the text here is based on recalculations of the NIS-1 estimates, as described in Chapter 2 (Section 2.5.3).

[9] The terms "in-scope" and "countable" refer to cases which fit the definitions of the study.

[10] This applies to the total pool of unduplicated, countable cases and considers what proportion were *only* known to Non-CPS sources. Another way of looking at the reporting rate question is to ask what proportion of the cases recognized by staff at non-CPS of the type that participated in the study had been reported to CPS. In the NIS-1, non-CPS sources were estimated to have reported only 21 percent of all the in-scope cases they recognized. See Chapter 6 of this report for an in-depth treatment of these issues.

As was intended, the NIS-1 data provide a baseline against which subsequent research findings can be compared in assessing changing national patterns in the frequency, severity, and distribution of child abuse and neglect. Since the NIS-1, there have been several studies designed to explore the extent of child maltreatment, but these have not been comparable to the NIS-1 because of a more limited topical focus (e.g., examining only a subcomponent of the problem, such as only physical abuse or only cases reported to CPS).[11] At the same time, the NIS-1 results are now seriously out of date.

Recognizing the need for updated information on the national incidence of child maltreatment, Congress mandated a new study in the Child Abuse Amendments of 1984 (P.L. 98-457). The purpose of this second National Incidence Study (NIS-2)[12] was not only to assess the current national incidence of child abuse and neglect, but also to determine how the severity, frequency, and character of child maltreatment changed since the NIS-1.

1.3 Objectives

The NIS-2 represents a follow-up to the NIS-1, and like the earlier study was undertaken in response to a specific Congressional mandate (Child Abuse Amendments of 1984, P.L. 98-457). As noted above, its purposes were to assess the current national incidence of child abuse and neglect and to determine how the severity, frequency, and character of child maltreatment have changed since the NIS-1. In addressing these goals, the NIS-2 extended the NIS-1 methodology as discussed later, in Chapter 2.

First, the central question addressed in the NIS-2 was: What is the current national incidence of countable cases of child abuse and neglect? (Where "countable" cases are those which conform to the standardized study definitions.) As further described in Chapter 2, the NIS-2 used two sets of definitional standards of abuse and neglect. One set corresponded identically to the definitions used in the NIS-1 and essentially reflected the numbers of children who experienced demonstrable harm as a result of maltreatment. Assessing the national incidence of cases countable under these standards provided a "core" or minimum estimate of the overall incidence of child maltreatment. The second set of definitional standards used in the NIS-2 was broader, or more inclusive. It provided a supplementary estimate which reflected the incidence of children who were endangered by maltreatment (i.e., placed at risk for harm, but not necessarily harmed yet). The core estimates were able to be compared with the NIS-1 findings to determine whether there have been any statistically significant changes in incidence since the 1980 study. The supplementary estimates indicated the potential magnitude of the problem of abuse and neglect as perceived by community professionals.

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[11] AHA has continued its reporting study (see footnote 7) to the time of this writing. Straus and Gelles conducted a national survey of households again in 1986, concerning physical violence toward children (see R.A. Gelles & M.A. Straus, "Is violence toward children increasing?" Journal of Interpersonal Violence, 1987, 2, 212-222.).

[12] Officially titled the Study of the National Incidence and Prevalence of Child Abuse and Neglect.

Second, in addition to providing overall estimates of incidence, the NIS-2 examined the distribution of child maltreatment by type (abuse vs. neglect) and by major subtypes (physical, sexual, and emotional abuse; physical, emotional, and educational neglect). The distribution of cases according to the severity of injuries/impairments from maltreatment was also determined and compared with that found in the NIS-1.

Third, the NIS-2 identified those child, family, and county characteristics which were related to the incidence, type, or severity of maltreatment and explored any changes in incidence since 1980 that were related to these factors. Among the factors explored in this connection were the child's age, sex, and ethnicity, the family's economic status and composition, and the rural/urban character of the county of residence. The Congressional mandate also required that the study examine the relationship between child maltreatment and the nonpayment of child support. Because the kinds of agency respondents recruited in the NIS design generally had no information on this point, a separate study component was designed and implemented to address this question. That study, together with its findings, is the subject of a separate report (**Report on Nonpayment of Child Support and Child Maltreatment**).

Fourth, apart from examining incidence rates per se, the distributions of recognition and reporting patterns were also of interest. Thus, as in the NIS-1, the proportion of countable cases that were known to CPS through reports to that agency was determined. The NIS-1 had indicated that a considerable proportion of recognized cases were not reported to

CPS. The NIS-2 identified the current proportion of unreported cases overall, and for each major category of non-CPS agencies studied, noting any changes in the ratios of reported/unreported cases since 1980.

In summary, the major objectives of the NIS-2 were to

- estimate the national incidence/prevalence of child abuse and neglect;
- determine the distribution and severity of child abuse and neglect;
- identify the relationship between the incidence of child abuse and neglect and child, family, and county characteristics;
- assess changes since the NIS-1 in the frequency, severity, and character of maltreatment; and
- determine the proportion of recognized child maltreatment known to CPS through official reports and the reporting rates for recognized cases by different types of agencies.

2. METHODOLOGY

This chapter summarizes the design and methodology of the study. It overviews the conceptual model that guided the development of the NIS-1 methodology, and indicates the approach taken in the present study. Sections briefly orient the reader to the study definitions, the county sample, and the methods of data collection and processing. Additional information on all these issues is given in Appendix A, which also includes copies of the data forms. Further details concerning the study definitions are also included later in Chapter 4, which reports on incidence estimates for the specific forms of maltreatment.

2.1 Study Design

Since the main purposes of the NIS-2 were identical to those of the NIS-1, the study design was essentially the same. A simple conceptual model provided the rationale for this design, as detailed in the ensuing subsection. Following that is a description of the general approach derived from the conceptual model.

2.1.1 Rationale

Although substantial numbers of abused and neglected children are recognized as such and reported to state and/or local Child Protective Services (CPS) agencies,[1] reported children represent only the "tip of the iceberg." The NIS methodology is based on the model given in Figure 2-1, which depicts these reported children at Level 1. As the model indicates, other abused and neglected children are at levels below this, with each succeeding level associated with decreasing degrees of official recognition or public awareness.

At Level 2 are those children who are not known to CPS but who are known to other "investigatory" agencies, such as police, courts, or public health departments. These agencies may have overlapping or even conflicting responsibilities concerning certain situations,

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[1] Local county CPS agencies are mandated to handle reports concerning child abuse and neglect in all states.

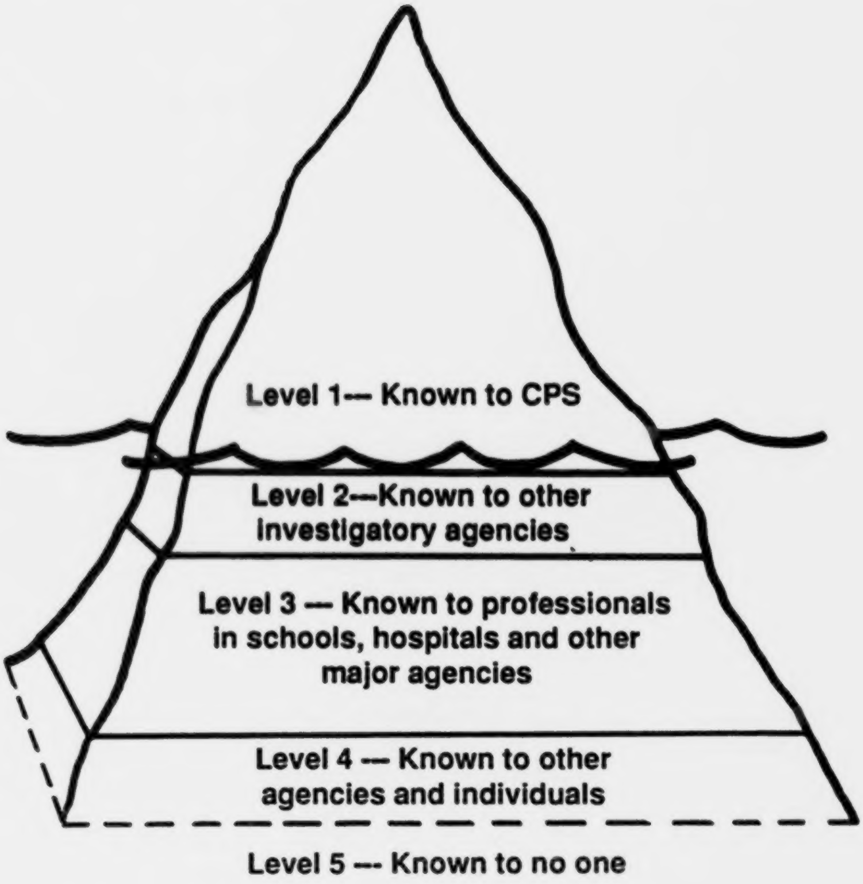
Level 1— Known to CPS
Level 2—Known to other investigatory agencies
Level 3 — Known to professionals in schools, hospitals and other major agencies
Level 4 — Known to other agencies and individuals
Level 5 — Known to no one

FIGURE 2-1

Levels of Recognition of Child Abuse and Neglect such as felonious assault, homicide, delinquency, dependency, domestic disputes, "children in need of control," or nutrition and hygiene problems. Children may remain at Level 2 because of questions of definition or disputes concerning the appropriate responsibilities of these different agencies in relation to CPS.[2] Although Level 2 children are, in some sense, "officially known," they are not necessarily regarded by the community as abused/neglected in the same sense as Level 1 children are, and they do not necessarily receive assistance which specifically targets their abuse/neglect problems.

Level 3 includes abused and neglected children who are not known to CPS or to any Level 2 agency, but who are known to professionals in other major community institutions, such as schools, hospitals, daycare centers, and social services and mental health agencies. Children may remain at this level for any number of reasons. One reason may be definitional ambiguities as to what types of cases should be reported to CPS (or to other investigatory agencies). Other reasons relate to the attitudes and assumptions of the professionals who are aware of these situations. For example, they may feel that they are in the best position to help, may not trust CPS to handle the problem appropriately, or may have apprehensions about becoming involved in an official investigation.

The abused and neglected children at Level 4 are recognized as abused and/or neglected by someone outside of the purview of the first three levels, such as a neighbor, another member of the family, or by one or both of the involved parties--the perpetrator and the child. However, none of the individuals recognizing the maltreatment at this level have made it known to persons at Levels 1 through 3.

At Level 5 are those children who have not been recognized as abused or neglected by anyone. These are cases where the individuals involved do not regard their behaviors or experiences as child maltreatment and where the situations have not (yet) come to the attention of outside observers who would recognize them as such.

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[2] Recent debate on the appropriate limits of CPS responsibility for child abuse and neglect cases emphasized the lack of consensus on this subject. (Cf. "Narrowing the definitions of child abuse and neglect," Plenary Session I, 111th Annual Meeting and Conference of the American Association for Protecting Children, October 1987, Austin, TX. A tape of this session is available from American Humane, 9725 East Hampden Avenue, Denver, Colorado 80231).

The model conveys the inherent difficulty of any attempts to measure the incidence of child abuse and neglect. Level 5 cases are by definition impossible to document (unless they can be brought into Level 4). In principle, it should be possible to identify children at Level 4 through methods such as surveys of parents, children, and/or neighbors.[3] This possibility was, in fact, entertained in both the NIS-1 and the NIS-2 during early design stages. However, the stigmatizing nature of acknowledgements of abuse and neglect introduces serious (and unknown degrees of) underreporting bias into estimates of cases at this level.[4] As a result, both the NIS-1 and the NIS-2 focussed on assessing the incidence of cases only at Levels 1, 2, and 3.

2.1.2 Approach

Since the main purposes of the NIS-2 were identical to those of the NIS-1, its design was essentially the same. It used an agency survey methodology in which both CPS and non-CPS agencies participated. CPS provided information about all reported cases. In addition, community professionals at both Level 2 and Level 3 agencies served as "sentinels" by remaining on the lookout for child maltreatment cases during the study data period.

2.2 Study Definitions

To a very considerable extent, state legislatures have left it up to professionals in the field to interpret specifically what constitutes "abuse" or "neglect." At the same time, consensus has yet to be reached as to the precise meaning of these terms, with different professional groups maintaining widely varying perceptions concerning the kinds and degrees of problems which constitute "child abuse" and "child neglect."[5]

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[3] As noted in Chapter 1 (see footnotes 7 and 10 in that chapter), Straus and his colleagues have conducted two nationwide surveys of households which aim to measure incidence at this level.

[4] In the NIS-1, telephone and in-person interviews with parents were pretested, but the approach was abandoned. In the present study, a household interview instrument was developed, but the survey itself was not undertaken. The NIS-1 pretest results raised very serious concerns about the reliability and validity of self-report data, particularly in areas of sexual and emotional abuse and in all areas of neglect.

[5] See, for example, Giovannoni, J.M. and Becerra, R., Defining Child Abuse, Free Press: N.Y., 1979.

One of the key achievements of the NIS-1 was the development of operational definitions of child maltreatment which were both clear and objective in specifying the kinds of situations that were encompassed by the study. All data collected in the study were "screened" for conformity to these definitional standards, and only those cases which fit the standards were considered "countable" and used as the basis for generating incidence estimates. This same approach was used in the present study. All data were assessed for conformity to study standards, and the findings reported in later chapters reflect estimates derived from cases of maltreatment which were found to be "countable."

2.2.1 Overview of Study Definitions

In order for an alleged case of child maltreatment to be considered "countable," the following definitional standards had to be met:

(1) *Child's Age*: The child was live-born and under 18 years of age at the time of the maltreatment in question.[6]

(2) *Child's Residence*: The child lived in one of the study counties at some time during the study period.[7]

(3) *Custody Status*: The child was a non-institutionalized dependent of parent(s)/ substitute(s) at the time of the maltreatment.[8]

(4) *Time of Maltreatment*: Maltreatment occurred during the study period which applied to the respondent agency.[9]

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[6] Acts or omissions which occurred during pregnancy or delivery were excluded.

[7] Temporary residence in a study county (vacationing or visiting there) was included. It was not necessary for the maltreatment itself to have occurred in the study county.

[8] Institutional abuse and neglect were excluded.

[9] For CPS data: a report concerning the maltreatment had been made to CPS during the twelve-month study period; for non-CPS data: the maltreatment itself had occurred during the specific four-month period during which the agency participated in the study.

(5) *Purposive and avoidable acts/omissions*: The maltreatment behavior was nonaccidental and avoidable.[10]

Maltreatment situations were classified into a number of specific forms, which were then categorized into six major types: physical abuse, sexual abuse, emotional abuse, physical neglect, emotional neglect, and educational neglect. Definitions of each of the specific forms of maltreatment are given in conjunction with incidence estimates in Chapter 4.

2.2.2 Original and Revised NIS-2 Definitions

In addition to the five standards listed above, there were requirements concerning both the perpetrator of the acts/omissions and the degree of harm to the child. A case was considered countable only if it met all seven standards. In assessing the countability of cases in the present study, two different sets of definitional standards concerning harm and perpetrator criteria were used: both the original NIS-1 standards and a revised set of standards. The original NIS-1 definitional standards were used in order to provide a consistent basis of comparison between the two studies. At the same time, in order to respond to serious criticisms of the original definitions, the NIS-2 also implemented revised versions of these standards. As a result of this strategy, the present study generated two sets of national estimates--one set based on original definitions which could be compared to the NIS-1 findings, and a supplementary set of estimates using the revised NIS-2 standards.

Revised Harm Requirements. For a given form of maltreatment to be countable in the NIS-1, it was generally necessary that the child have suffered demonstrable harm as a result of the maltreatment.[11] The NIS-1 did not deal with situations where a child's health or safety was endangered through abusive or neglectful treatment, only cases where demonstrable injury had already resulted from such treatment. Because of this very stringent requirement, the majority of the cases substantiated or indicated[12] as abuse or neglect by CPS did not meet the NIS-1 standards for "countability" and so were not used in generating estimates of the national incidence of maltreatment in that study.[13] Critics of that first national incidence study viewed this as a serious shortcoming. To address this criticism, the original standard of demonstrable harm was replaced by the endangerment standard in the revised definitions, allowing inclusion of cases where a child's health or safety was endangered through abusive or neglectful treatment. According to the revised standard, all cases were considered to meet the revised harm criterion if maltreatment was officially substantiated by CPS or if non-CPS professionals judged the child's health or well-being to have been seriously endangered by the maltreatment they reported.[14] By using both the original and the revised standards simultaneously, it was possible to include all substantiated CPS cases in the supplementary counts without forfeiting the core objective meaning of the national estimates based on the original definitions.

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[10] The study excluded problems or hazards which the parent/substitute lacked the financial means to prevent or alleviate and for which appropriate assistance was not available through public agencies. Also excluded was lack of care stemming from parent/substitute death, hospitalization, incarceration or other circumstances which made it physically impossible to provide or arrange for adequate care.

[11] As described further in Chapter 4, certain specific forms of maltreatment were considered so inherently traumatic that whenever the circumstances met other standards of countability, emotional harm was automatically assumed to have occurred.

Revised Perpetrator Requirements. The revised definitional standards also incorporated less stringent requirements as to the perpetrator of maltreatment.

The NIS-2 revised perpetrator criteria were more inclusive than the NIS-1 perpetrator standards in two principal ways. First, in addition to parent(s)/substitute(s), situations where other adult caretakers permitted sexual abuse were also considered countable. Second, in addition to parent(s)/substitute(s), other adult caretakers were allowable perpetrators for two forms of neglect: inadequate supervision and other physical neglect (such as inadequate food, clothing, shelter, disregard of physical hazards, and other inattention to the child's physical safety and well-being).

Revisions of the NIS-1 requirement on the *perpetrator's age* were primarily motivated by a concern that cases not be automatically excluded from countability simply because the perpetrator was not legally of adult status (i.e., 18 or older). Under the original NIS-1 requirements, maltreatment perpetrated by teenagers was included when they were the child's parents/substitutes, but not when they were other caretakers of the child. Under the revised NIS-2 perpetrator requirements, cases of sexual abuse were also countable if nonparental teenage caretakers had perpetrated or permitted the abuse.[15] Further details concerning harm and perpetrator criteria revisions are treated in Chapter 4, where specific forms of maltreatment are discussed.

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[12] "Indicated" cases were those for which the final CPS assessment had not been made at the time the study data form was required, but where the investigating CPS caseworker regarded the available evidence as sufficient to warrant continued investigation.

[13] According to the re-estimations of NIS-1 findings, 59 percent of substantiated or indicated cases were excluded as not countable by the original definitional standards.

[14] For example, a two-year old child who was left home alone for several hours may have emerged from the incident unscathed, but the police officer or other community professional who submitted a data form on the case may have judged this treatment as having seriously endangered the child.

2.3 Data Collection

A total of 29 counties (reflecting 28 primary sampling units, or PSUs) were selected for the study, using a method which insured that the final sample would represent different regions of the country and different degrees of county urbanization. In each county, participants included the county CPS agency and professional staff in a number of non-CPS agencies who were likely to come into contact with maltreated children. Non-CPS agencies included:

- Public schools -- a sample of 10 per PSU,
- Daycare centers -- a sample of 5 per PSU,
- Short-stay general and children's hospitals -- an average sample of 4 per PSU,
- Municipal police departments -- an average sample of 3 per PSU,
- Social services/mental health agencies - 4 per PSU,
- The county juvenile probation department (generally one per county),
- County sheriff/state police -- wherever the county had unincorporated jurisdictions which were not served by municipal law enforcement agencies,
- The county public health department - one per county.

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[15] Inclusion of teenage perpetrators did not affect the number of countable cases in other categories of maltreatment, so the perpetrator criteria were not changed for the other maltreatment categories.

Overall, 706 non-CPS agencies participated in the study, representing 88.5% of the 798 eligible agencies asked to participate.

The study period began September 7, 1986, for all agencies other than schools and daycare centers, where it began September 28. The period continued through December 6, 1986, for all agencies. Data collection was prospective in nature. CPS agencies were asked to submit data forms on cases which were reported during the period and which were accepted for investigation by the agency. Non-CPS participants were trained in the study definitions of maltreatment and asked to submit a study data form on each maltreated child they encountered during the study period. Two types of CPS data forms were used: a long form, which obtained sufficient details on the case to allow it be assessed for countability according to study definitions, and a short form, which was for the specific purpose of identifying duplicate reports concerning the same child. CPS data forms were "family level" forms, which documented allegations concerning all children in a report on a given household or family. A separate non-CPS data form was designed for use by all non-CPS participants. The non-CPS data form was a "child level" form which recorded suspected maltreatment to an individual child. Copies of these data forms are given in Appendix A.[16]

The study received a final total of 7,185 data forms (1,624 long CPS data forms, 2,285 short CPS data forms, and 3,276 non-CPS data forms). Because of sampling, the CPS data forms represented a total of 36,719 official reports which had been received and accepted for investigation by participating CPS agencies during the course of the study.

2.4 Data Processing

Readers should be aware of three key aspects of data processing: countability assessment, unduplication, and certain aspects of the weighting.[17]

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[16] Details concerning sampling arrangements to minimize the burden on CPS and non-CPS agencies are given in Appendix A and in the Report on Data Collection.

[17] Further details concerning weighting and data analysis are given in Appendix A, and more complete treatment of all data processing and analysis issues can be found in the Report on Data Processing and Analysis.

2.4.1 Countability Assessment

Cases recorded on CPS long forms and on non-CPS forms were assessed as to their "countability" in relation to the study definitions. For each child substantiated by CPS, or thought to meet the study requirements on either type of data form, the NIS-2 project staff rated the degree to which the situation fit each of the two sets of definitional standards--the original NIS-1 definitions and the revised NIS-2 definitions, discussed above and further detailed in Chapter 4. Each applicable form of suspected or substantiated maltreatment was assessed as to its substance (who was alleged to have done what to whom, when, with what effect, and with what quality of evidence). Ratings were made of the degree to which the situation fit each individual aspect of the original NIS-1 and revised NIS-2 standards. Following this, overall assessments were made under each of the definitional standards. Maltreatment was judged to be "countable" under a given set of standards if there was reasonable cause to believe that the child had experienced maltreatment which met all of the requirements of the definitional standards in question.

Despite the complexity of this assessment, it was reliable. Measurements of the reliability of these judgments on a random ten percent of the data forms (i.e., on 534 data forms) showed that coders had an 86% agreement as to whether a case was countable or not countable. This percent agreement held whether the decision concerned countability according to original NIS-1 standards or according to the revised NIS-2 criteria.

2.4.2 Unduplication

More than one data form could be submitted to the study concerning an individual child. Such duplicates could occur because the same maltreatment event was reported by more than one study source, or because the same child had experienced more than one occurrence of maltreatment during the study period. In either case, it was necessary to identify and resolve all such duplicate reports in order to permit estimates in which the child was the unit of measurement. At the same time, unduplication had to be accomplished without the use of fully identifying information, which had been avoided in the interests of confidentiality. Exactly following the NIS-1 approach, enough close-to-identifying information was obtained to allow fairly certain judgments as to whether or not two data forms described the same child.

Having determined which data forms were duplicates, only one record was retained to represent an individual child. Also, whenever a child had been identified to the study both by CPS and by a non-CPS respondent, CPS was credited with having submitted the case.[18] Non-CPS respondents were credited only with those children they submitted to the study beyond those known to CPS. Moreover, within the non-CPS sector, duplicate records were credited according to a priority system which was based on the "level of recognition" model described above in Section 2.1.1. Further details about this priority system are provided later, in Chapter 6.

2.4.3 Weighting and Estimation

National estimates were obtained by "weighting" each individual case in accordance with the probability of having selected the source who reported it to the study. By use of appropriate weights at each level, the cases obtained were used to represent the much larger database that would have been obtained if all potential data sources had participated and no sampling had been used.

A number of important issues were taken into account in the process of weighting, including annualization, calculation of sampling errors or variances, and corrections for incomplete or poor participation by non-CPS respondents.

Annualization. Data were collected for a three-month period in most agencies (for only ten weeks in schools and daycare centers). Data from all agencies were weighted so as to represent the number of cases which would have been obtained had the data period lasted for a full year. The NIS-1 database provided the only available source of information about annualizing the data in the current study, and so was used as the basis for calculating annualization factors.

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[18] Apart from deciding what record to use to represent the case and which agency category to credit for having submitted the case, it was also necessary to decide how to weight the case. This issue is detailed in the Report on Data Processing and Analysis, Chapter VI.

Sampling Errors. There is some degree of uncertainty associated with any estimate that is made on the basis of a sample. The standard error provides some idea of much uncertainty is associated with a given estimate as a result of the use of a sample rather than a complete study of the total population (it does not reflect other sources of error).[19] Thus, the standard error indicates the precision of an estimate, and having reliable estimates of the standard error is a prerequisite for conducting statistical comparisons of the estimates for different groups.

The standard error of estimate was calculated for all estimates reported in subsequent chapters. In addition, because the method of calculating totals and rates in the NIS-2 differed slightly from the approach used in the NIS-1, the NIS-1 estimates themselves were recalculated using this same method. This provided a uniform basis for comparisons between NIS-2 and NIS-1 findings. The recalculations used a method which maximized the precision of estimates and at the same time capitalized on the availability of updated population figures. For these reasons, the 1980 figures given in this report do not exactly correspond to those in the original NIS-1 report of findings, but are more precise and more accurate than the original figures.[20] Standard errors and 95 confidence intervals for each of the incidence measures reported in subsequent chapters of this report can be found in Appendices B, C, and D.

Correcting for Poor and Incomplete Participation. Efforts were made to compensate for any incomplete or poor participation by non-CPS respondents in the weights assigned to the cases.

The "sentinel" nature of non-CPS data collection makes it particularly vulnerable to distortion by low participant interest. Ideally, the numbers of cases submitted by a participant should be informative about the numbers of maltreated children s/he encountered. Participants with low degrees of interest in or commitment to the study can easily distort the incidence estimates downward by their failure to recognize and/or submit data forms on the cases they encounter.[21] To minimize this source of distortion, evaluations of each participant's degree of interest in and commitment to the study were obtained, and weighting adjustments were made for any who received particularly poor ratings.

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[19] The range or "window" around an estimate within which one can be confident the estimate lies is called a "confidence interval." One can be 95 percent certain that the incidence falls within the range specified by the 95 percent confidence interval.

[20] The methods used are fully detailed in the Report on Data Processing and Analysis.

A similar downward distortion was possible when an otherwise interested and committed participant did not participate for the full data period for whatever reason (e.g., sickness, vacation, etc.). All such absences were monitored during the study, and the final weights were adjusted to correct for any lost time.

2.4.4 Data Analysis

The principal findings of the study are the incidence estimates themselves, and these required no further analysis after estimation and calculation of their standard errors. However, in order to compare the findings of the NIS-1 and the NIS-2, or to examine patterns of differences across subgroups within the NIS-2 (such as across the different age groups), some further statistical analysis was necessary. In order to keep the text of this report accessible to readers without statistical expertise, only the conclusions drawn from these analyses are provided in the following chapters. Readers with some background in statistics who are interested in examining the details of the analyses themselves can find them reported in Appendix D.

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[21] Note that the study methodology makes the estimates based on the original definitions vulnerable to downward, but not upward, distortion. Since all cases were reviewed for their conformance to standardised study definitions and since the original definitions included objective harm criteria, all cases not meeting these criteria could be identified and excluded. Thus, the original definitions provided an important protection against upward bias. In contrast, estimates based on the revised definitions could be biased upward, since the revised definitions relied on an inherently subjective harm criterion. That is, cases which met all other study criteria were countable if the respondent deemed the child to have been endangered by the maltreatment in question.

2.5 Methodological Differences from the NIS-1

It is important to note that the methods used in the NIS-2 reflected several revisions of those which had been used in the NIS-1. There were six principal areas of difference:

- **County sample:** The NIS-2 sample of study counties was selected by probability proportionate to size. This insured a better representation of the more populous counties.[22]
- **More extensive use of sampling strategies:** To accomodate larger and more complex agencies in more populous counties and those with heavy child abuse and neglect caseloads, far more extensive case sampling arrangements were implemented in the NIS-2 in both CPS and non-CPS agencies.[23] The use of these methodological revisions to accomodate large agencies was remarkably successful.[24]
- **Non-CPS agencies represented:** Non-CPS agencies from an expanded set of categories were recruited in the NIS-2, adding daycare centers and considerably increasing the representation of mental health and social services agencies. This afforded a more thorough search for cases at Levels 2 and 3 of the "iceberg," in the model presented earlier.
- **Quality control of non-CPS participation:** There was a closer monitoring of non-CPS participants' level of involvement throughout the study, with corrections made for participants who had especially low ratings of interest and commitment and adjustments made for absences during the data period.[25]

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[22] In the NIS-1, only two of the 26 sampled counties had populations of 750,000 or more. In the NIS-2, there were ten such counties in the sample of 28 PSUs.

[23] Whereas in the NIS-1 it had been possible to obtain a data form for every case investigated by participating CPS agencies, the NIS-2 did not attempt to do so in those counties where more than 2,000 reports were investigated per year. All eligible non-CPS agency staff were identified as key participants in the NIS-1, but because of the large number of staff eligible for the NIS-2 in many non-CPS agencies, it was frequently necessary to sample participants in the NIS-2. The NIS-2 also made more extensive use of case sampling in non-CPS agencies compared to the NIS-1.

[24] In the NIS-1, nonparticipation was a problem in that those agencies which expected to encounter substantial numbers of children meeting the study requirements had been more likely to refuse participation. In the present study, agency participation rates were comparable to those in the NIS-1 despite the fact that considerably more of the agencies were larger, more complex, and had heavier child abuse and neglect caseloads--and refusals were not notably concentrated in such agencies.

[25] In the NIS-1, it was noted that the quality of participation varied considerably across agencies, but there was no available mechanism for rectifying this problem.

- **Dual definitions:** The study applied both the original definitional standards and a set of revised definitions which applied less stringent requirements in defining the set of "countable" cases, thereby generating two sets of incidence estimates. Use of the less stringent revised definitions required broader reporting guidelines for non-CPS participants concerning the cases of interest to the study.

- **Time frame:** In the NIS-1, CPS agencies participated for 12 months and non-CPS agencies for 4 months, whereas the NIS-2 data period was only three months and even this was abbreviated to ten weeks in the case of schools and daycare centers. This allowed the NIS-2 to be conducted in less time and at lower cost, but made it necessary to apply an annualization factor in generating estimates.

2.6 The Meaning of the Incidence Estimates

This report provides estimates of the numbers of children who experienced countable (or "in-scope") maltreatment according to original NIS-1 definitions of maltreatment and according to revised definitions, as described above. Key features of these estimates are:

- The incidence estimates use the child as the unit of measurement. They were based on the (weighted) numbers of children who met study requirements in one or more maltreatment categories. There was no attempt to "count" families, incidents (i.e., episodes), or reports. The ultimate "count" was of *children*: how many different children met the study requirements in at least one category of maltreatment?

- The incidence estimates are annualized figures which reflect a 12-month period, but they were based on data from only a 3-month period, specifically, September 7 to December 6, 1986. In the course of the year (even in the course of the data period itself), many different incidents of several different forms of maltreatment may have occurred, but any particular child was "counted" only once in any individual incidence estimate. Repeat reports concerning a single child, whether from the same study source or from different study sources, were "unduplicated" and the child was represented in the final analyses only once.

- Estimates of incidence are given both in terms of numbers and in terms of rates. That is, estimates are given both for the total numbers of children and the numbers of children per 1,000 in the U.S. who experienced countable maltreatment.

3. INCIDENCE OF CHILD ABUSE AND NEGLECT

For the results presented in this and subsequent chapters, each child reported to the study was represented by a single record. The unit of measurement was the child, and each table provides estimates in terms of incidence rate (numbers of children maltreated annually per 1,000 children in the U.S. population) and in terms of incidence per se (total numbers of children nationwide who are maltreated annually).[1]

The findings reported in this chapter address the following principal questions:

- What is the current national incidence of cases of child abuse and neglect defined as countable according to the same objective standards used in the original incidence study? Have there been any statistically significant changes in incidence since the original study in 1980?
- What is the current national incidence of cases of child abuse and neglect, defined as countable according to the revised NIS-2 standards?[2]
- What is the current national incidence of each of the major categories of child abuse and neglect, as defined by both the original and revised standards? How does their current incidence compare with the 1980 incidence figures?
- How are the outcomes of child maltreatment, countable under each set of definitions, currently distributed across levels of severity? How does the distribution here compare with that found the NIS-1?

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[1] Specific details concerning how the data were processed, unduplicated, weighted, and analyzed can be found in the Report on Data Processing and Analysis.

[2] The reader will recall that a critical aspect of these revisions was the relaxation of the harm requirement from that of demonstrable harm to one of endangerment. That is, cases where a child was considered to have been seriously endangered by maltreatment (but had not yet been injured/impaired) were included under the revised NIS-2 standards. Because the revised definitions were broader, they resulted in higher estimates of the incidence of maltreatment than those based on the original definitions.

The following sections address each of these issues in turn.[3]

3.1 National Incidence of Countable Child Maltreatment

Table 3-1 presents incidence levels based on both the original definitional standards used in the NIS-1 and the NIS-2 and the revised standards developed for NIS-2.[4] Here it can be seen that, in 1986, 16.3 children per 1,000 nationwide met the original definitional standards and were classified as countable cases of maltreatment. This represented an estimated 1,025,900 children.

The 1980 vs. 1986 comparisons indicated that cases countable under the original standards have increased significantly in the interim since 1980,[5] from about 9.8 to about 16.3 children per 1,000 (a 66% increase), representing an increase from 625,100 to 1,025,900 children (a 64% increase). Whether or not this reflects an increase in the actual occurrence of child maltreatment or simply an increase in the ability of professionals to recognize countable cases will be discussed later in this chapter. Also note that, based on the revised definitions, the overall rate of countable maltreatment in 1986 was 25.2 children per 1,000, representing 1,584,700 total countable cases.

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[3] As given in Appendix E differences between the 1986 and 1980 studies have been assessed by the use of the t-statistic. Only those differences which met the standard criterion of having less than a five percent probability of occurring by chance are explicitly noted in the text and tables given here. Because incidence rates take account of any changes in the population since 1980, all statistical comparisons between the two studies were made with this measure. In this and subsequent chapters, all estimates cncerning total numbers of children are rounded to the nearest hundred. The precise estimates, together with their upper and lower 95 percent confidence bounds, can be found in Appendices B, C and D.

[4] Tables 3-2 through 3-5 follow the same format: Incidence rates are given in the upper half of the table, while estimated totals appear in the lower half. The four columns of figures represent, respectively (1) findings from NIS-1 data collected in 1980 (as noted in Chapter II, NIS-1 estimates were recalculated using procedures which conform to those used in the present study); (2) 1986 estimates based on the original NIS-1 definitions; (3) the differences in 1980 and 1986 estimates; and (4) 1986 estimates based on the revised NIS-2 definitions.

[5] Meaning that the probability is less than one in twenty that the increase in countable cases since 1980 occurred due to chance alone.

Table 3-1. National incidence and level of recognition of child maltreatment

		Original Definitions			1986
	Category	1980	1986	1980-1986 Increase	Revised Definitions
RATE[a]	Total Countable	9.8	16.3	6.5*	25.2
TOTAL[b]	Total Countable	625,100	1,025,900	400,800*	1,584,700

*The 1980-1986 difference in estimated incidence rate was significant at the $p < .05$ level.

[a] Per 1,000 children in the population.

[b] Total number of children rounded to the nearest 100; not adjusted by population totals.

3.2 Incidence of Types of Child Maltreatment

In Table 3-2, countable cases of child maltreatment are categorized into those involving some form of countable abuse and those involving some type of countable neglect. Cases which involved both abuse and neglect are included in both categories, so the categories sum to more than the total number of countable cases given in Table 3-1.

Table 3-2 indicates that the majority of cases countable under the original definitions (56%) involved abuse (9.2 per thousand, or 580,400 children), and just under half (48%) involved neglect (7.9 per 1,000 or 498,000 children). This table also indicates that the significant increase since 1980 in total number of maltreatment cases reflected a significant increase in countable cases of abuse--but that there has been no significant change in the incidence rate of countable cases of neglect under the original definitions.

Applying the revised definitions resulted in a shift in these proportions. Less than half (43%) of the countable cases under the revised definitions involved abuse (10.7 per 1,000 or 675,000 children), whereas almost two-thirds (63%) involved neglect (15.9 per 1,000 or 1,003,600 children). This reflects the fact that the revised definitions made far more of a difference in the countability of neglect cases than in the countability of abuse cases. That is, in many cases involving neglect countable under the revised definitions, the child in question had not (yet) experienced any demonstrated injury/impairment (and so had not been countable as maltreated under the original definitions), whereas s/he had been considered as endangered by the maltreatment. In abuse cases, however, children were more likely to have already experienced some injury/impairment, and so to be already countable under the original definitional standards.

Tables 3-3 and 3-4 further detail the distribution of the incidence of child maltreatment, presenting the estimated rates and totals for the major subcategories of abuse and neglect, respectively. Again, a given case could be included in more than one of the subcategories, so the subcategories in each table total to more than the corresponding category total given in Table 3-2.

Table 3-2. Distribution of child abuse and neglect

	Category	Original Definitions			1986 Revised Definitions
		1980	1986	1980-1986 Increase	
RATES[a]	Abuse	5.3	9.2	3.9*	10.7
	Neglect	4.9	7.9	3.0	15.9
TOTALS[b]	Abuse	336,600	580,400	243,800	675,000
	Neglect	315,400	498,000	182,600	1,003,600

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* The difference in rate of incidence between 1986 and 1980 was significant at the $p < .05$ level.

[a] Per 1,000 children in the population.

[b] Total number of children rounded to the nearest 100; not adjusted by population totals.

Table 3-3. Distribution of child abuse

	Category	Original Definitions 1980	Original Definitions 1986	Original Definitions 1980-1986 Increase	1986 Revised Definitions
RATES[a]	Physical Abuse	3.1	4.9	1.8*	5.7
	Sexual Abuse	0.7	2.2	1.5*	2.5[c]
	Emotional Abuse	2.1	2.8	0.7	3.4
TOTALS[b]	Physical Abuse	199,100	311,200	112,100*	358,300
	Sexual Abuse	42,900	138,000	95,100*	155,900[c]
	Emotional Abuse	132,700	174,400	41,700	211,100

* The 1986 and 1980 incidence rates differed significantly at the $p < .05$ level.

[a] Per 1,000 children in the population.

[b] Total numbers of children rounded to the nearest 100; not adjusted by population totals.

[c] Includes teenage perpetrators.

Table 3-4. Distribution of child neglect

	Category	Original Definitions			1986 Revised Definitions
		1980	1986	1980-1986 Increase	
RATES[a]	Physical Neglect	1.6	2.9	+1.3	9.1
	Emotional Neglect	0.9	0.8	-0.1	3.5
	Educational Neglect	2.7	4.6	+1.9	4.6
TOTALS[b]	Physical Neglect	103,600	182,100	+78,500	571,600
	Emotional Neglect	56,900	52,200	-4,700	223,100
	Educational Neglect	174,000	291,100	+117,100	292,100

*No statistically significant differences between 1980 and 1986 incidence figures.

[a] Per 1,000 children in the population.

[b] Total numbers of children rounded to the nearest 100; not adjusted by population totals.

3.2.1 Types of Abuse

Table 3-3 provides the incidence statistics for subcategories of abuse. There it can be seen that 4.9 children per 1,000 (or 311,200 children) experienced physical abuse which was countable under the original definitions in 1986, accounting for the greatest proportion of all the abuse cases. Physical abuse was also the most frequent subcategory of abuse under the revised definitions, with 5.7 children per 1,000 (or 358,300 children) countable under those criteria.

The next most frequently-occurring subcategory of abuse was emotional, with 2.8 children per 1,000 (or 174,400 children) suffering this type of maltreatment under the original definitions. As one would expect, the use of the revised definitions led to a higher estimate for the incidence of countable emotionally abused children (3.4 children per 1,000, or 211,100 children). As was noted above concerning neglect, emotional abuse often had not yet resulted in injury/impairment in many cases where the child was nevertheless perceived as endangered and hence was countable under revised definitions but not under original standards.

Sexual abuse was the least frequent of all three major subcategories of abuse under both definitions. However, it was not much below emotional abuse in incidence in the 1986 data. Under the original definitions, 2.2 children per 1,000 (or 138,000 children) experienced some form of countable sexual abuse during the year. As noted earlier (see Section 2.2), the revised 1986 standards included teenage perpetrators of sexual abuse. Under the new definitions there were 2.5 sexually abused children per 1,000 in the population, or 155,900 countable cases of sexual abuse nationwide in 1986.

Concerning changes in the different forms of abuse since the 1980 study, note that there were significant increases in the incidence of both physical abuse and sexual abuse, but that emotional abuse did not change in incidence. Remarkably, the incidence of countable sexual abuse more than tripled since 1980, and this increase was highly statistically significant.

3.2.2 Types of Neglect

Subcategories of neglect are presented in Table 3-4. It can be seen that under the original definitions, educational neglect was the most frequently occurring form of neglect, involving 4.6 children per 1,000 (or 291,100 children) and accounting for 58% of all countable neglect cases in the current study. The second most frequent subcategory was that of physical neglect, with 2.9 children per 1,000 (or 182,100 children) having experienced this type of maltreatment in 1986. Physically neglected children represented 37% of all neglected children countable under original definitions in this study. Finally, the least frequently occurring subcategory of neglect (reflecting only 10% of all neglected children under the original definitions) was that of emotional neglect, having occurred to 0.8 children per 1,000 (or 52,200 children nationwide).

Just as the use of the revised definitions revealed a greater incidence of overall neglect (see above), so did it dramatically shift the distribution of neglect across the subcategories. As can be seen in Table 3-4, under the revised definitions, physical neglect represented by far the largest subcategory of countable neglect. There were 9.1 children per 1,000 (or 571,600 children) who experienced countable physical neglect under the revised definitions, representing 57% of all neglected children under these standards. Educational neglect was the second most frequent subcategory, with 4.6 children per 1,000 (or 292,100 children) experiencing this type of maltreatment. This represented 29% of the total countable neglect cases. Finally, while emotional neglect was the least frequent subcategory under the revised as well as the original definitions, it nevertheless did represent a much larger proportion of the estimated total neglect cases under the new definitions, where countable emotional neglect was experienced by 3.5 children per 1,000 (or 223,100 children), representing 22% of all neglected children.

Finally, note that there were no statistically reliable differences between the 1980 and 1986 studies when the subcategories of neglect were compared (using, of course, the original definitions).

3.3 Severity of Outcomes from Countable Maltreatment

Table 3-5 presents the distribution across different degrees of injury/impairment of all those cases where countable maltreatment of some form occurred to a child.[6] The entries in this table total to those in Table 3-1.

An estimated 1,100 children died in 1986 as a result of maltreatment countable under the original definitions. This reflected an incidence rate of 0.02 maltreatment-related fatalities per 1,000 children and involved 0.1% of the countable maltreatment cases.

Injury/impairment was defined as serious when it involved a life-threatening condition, represented a long-term impairment of physical, mental, or emotional capacities, or required professional treatment aimed at preventing such long-term impairment. Examples of serious injuries/impairments include: loss of consciousness, stopping breathing, broken bones, schooling loss which required special education services, chronic and debilitary drug/alcohol abuse, diagnosed cases of failure to thrive, third degree burns or extensive second degree burns, and so forth.[7] Serious maltreatment-related injuries occurred to 2.5 children per 1,000 in 1986, representing 157,100 children, or 15% of all children maltreated according to the original definitions. The corresponding figures under the revised definitions were similar, with 2.5 children per 1,000 (or 160,000 children) estimated to have received serious injuries. They represented 10% of all children maltreated according to the revised definitions.

Moderate injuries/impairments were those which persisted in observable form (including pain or impairment) for at least 48 hours. For example, bruises, depression or emotional distress (not serious enough to require professional treatment), and the like. Moderate degrees of injury/impairment were experienced by 11.7 children per 1,000 (or 740,000 children) in 1986, and these accounted for 72% of the children countable as maltreated under original definitions. Considering children countable under the new definitions yielded a slightly greater incidence estimate for moderate injuries, with 15.1 children per 1,000 receiving moderate

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[6] Those children who experienced multiple injuries of different degrees of severity were classified under the most serious injury/impairment for this analysis. Note that endangerment cases were only countable under the revised NIS-2 standards.

[7] See "Guidelines for Evaluative Coding," Appendix C in the Report on Data Processing and Analysis.

Table 3-5. Incidence of injury/impairment from child maltreatment

	Category	Original Definitions 1980	Original Definitions 1986	Original Definitions 1980-1986 Increase	1986 Revised Definitions
RATES[a]	Fatal	0.02	0.02	0.0	0.02
	Serious	2.1	2.5	0.4	2.5
	Moderate	6.2	11.7	5.5*	15.1
	Probable	1.5	2.0	0.5	2.8
	Endangered	N/A	N/A	N/A	4.7
	Unknown[c]	0.0	---	---	---
	Total	9.8	16.3	6.5*	25.2
TOTALS[b]	Fatal	1,000	1,100	100	1,100
	Serious	131,200	157,100	25,900	160,000
	Moderate	393,400	740,000	346,600*	952,600
	Probable	97,500	127,800	30,300	173,700
	Endangered	N/A	N/A	N/A	297,200
	Unknown[c]	2,000	---	---	---
	Total	625,100	1,025,900	400,800*	1,584,700

[*] The difference between 1986 and 1980 incidence rates is significant at the $p < .05$ level.

[a] Per 1,000 children in the population.

[b] Numbers of children rounded to the nearest 100; not adjusted by population totals.

[c] For 0.31% of all maltreated children in the NIS-1, severity of Injury/Impairment was unknown.

N/A--Not applicable in original NIS-1 definitional standards.

injuries, or 952,600 children nationwide, representing 60% of all children maltreated according to revised standards.

The nature of the maltreatment itself gave reasonable cause to assume that injury/impairment probably occurred[8] to 2 children per 1,000 in the U.S. in 1986, or 127,800 children countable under original definitions. Here, probable injuries/impairments involved 12% of all maltreated children. The breakdown under the new definitions was similar, with 2.8 children per 1,000 or (173,700 children) counted as probably injured/impaired, representing 11% of all maltreated children.

The revised definitions allowed estimates to include those children believed to have been endangered but not yet injured/impaired (see Section 2.2).[9] An estimated 4.7 children per 1,000 (or 297,200 children) were endangered, representing 19% of all maltreated children under the revised definitions.

Tests of differences between the 1980 and 1986 results (using original definitions) showed no significant changes in the incidence of fatalities, serious injuries/impairments, or probable injuries. There was, however, an 89% increase in the incidence rate of moderate injuries due to maltreatment, and this increase was statistically significant.

This configuration of differences between the two studies in rates of injury/impairment implies that the overall increase in cases countable under original definitions may have reflected an increase in the likelihood that professionals would recognize maltreatment, rather than an increase in actual maltreatment occurrence, or incidence per se. That is, had maltreatment per se increased in incidence since 1980, one would expect an increase at all levels of injury/impairment. If, however, it was the likelihood of recognition that increased, as speculated here, then one would expect a pattern of results similar to the one actually reported: highly noticeable harm such as fatalities and serious injuries/impairments should show little change, as these would have been at or near their maximum level of recognition in 1980. Increases should be most dramatic at the level of moderate injury/impairment, where there was greater potential for improved recognition of cases. Also note that the localization of increased maltreatment to physical abuse and sexual abuse is consistent with an explanation of the increase as one in recognition rather than incidence per se. It seems reasonable to assume that, in the interim since 1980, professionals have become better attuned to the cues of these types of maltreatment.[10]

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[8] The label "probable injury/impairment" in fact means that the nature of the maltreatment was used as the basis for inferring that injury/impairment had probably occurred to the child. Thus, "probable" should not be interpreted as less serious than "moderate.". Many of the types of maltreatment used as the basis for inferring probable injuries (e.g., abandonment, incest, extreme close confinement) could reasonably lead to serious injury or impairment.

[9] Children who were not otherwise injuried/impairment were defined as endangered by the alleged acts or omissions of maltreatment if (a) they were explicitly rated by the respondent who completed the data form on their case as having been endangered by the maltreatment, or (b) they had been reported to CPS and their case had been officially substantiated.

Overall, the majority of children who experienced countable maltreatment had suffered moderate degrees of injury/impairment as a result of their abuse and/or neglect and increases in the incidence of injuries since 1980 predominated at this level of moderate injury. This pattern of change suggested that the increase in countable cases since 1980 may have been due largely to increased recognition of moderate maltreatment on the part of professionals.

3.4 Summary

3.4.1 Original Definitions

The following were notable findings of the NIS-2 using the original definitions which were established in the NIS-1:

- In 1986, an estimated 16.3 children per 1,000 or a total of more than one million children nationwide experienced abuse or neglect in 1986 which met the original standardized study definitions of maltreatment.
- The majority of countable cases (56%) involved abuse, and just under half (48%) involved neglect. Abused children represented an incidence rate of 9.2 per 1,000 and numbered about 580,400; there were 7.9 neglected children per 1,000 in 1986, representing about 498,000 children nationwide.

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[10] Unfortunately, however, the evidence discussed earlier in the chapter also indicates that they are no more likely to report the cases they recognize than they were in 1980.

- The most frequent category of abuse was physical, followed by emotional abuse and then by sexual abuse, with incidence rates of 4.9, 2.8, and 2.2 children per 1,000, respectively.
- The frequency ranking of the subcategories of neglect was educational, physical, and emotional, with incidence rates of 4.6, 2.9, and 0.8 children per 1,000, respectively.
- Moderate injuries predominated, occurring in 72% of the countable cases; these were followed in frequency by serious injuries (15%), probable injuries (12%), and fatalities (0.1%).

3.4.2 Revised Definitions

Because the revised definitions were more inclusive than the original definitions, being based on an endangerment rather than a demonstrable harm standard, estimates using the revised definitions were generally higher across the board than the corresponding estimates based on the original definitions. The following were notable findings of the NIS-2 using the revised definitions:

- Under the revised definitions, an estimated 25.2 children per 1,000 or a total of more than one and one-half million children nationwide experienced abuse or neglect in 1986;
- The majority of countable cases (63%) involved neglect, and fewer than half (43%) involved abuse, reversing the pattern found under the original definitions. There were 15.9 countable neglected children per 1,000, numbering 1,003,600 children nationwide, there were 10.7 abused children per 1,000, representing 675,000 children nationwide;
- The most frequent type of abuse was physical, followed by emotional abuse and then by sexual abuse, with incidence rates of 5.7, 3.4, and 2.5 children per 1,000, respectively;
- The frequency ranking of the subcategories of neglect differed from the pattern obtained under the original definitions. Using the revised definitions, physical neglect was by far the most frequent form of neglect, followed by educational neglect, and then emotional neglect, with incidence rates of 9.1, 4.6, and 3.5 children per 1,000 respectively; and
- Moderate injuries predominated, occurring in 60% of the countable cases; these were followed in frequency by children believed to be endangered by the maltreatment they experienced (19%), then by probable injuries (11%), serious injuries (10%), and fatalities (0.1%).

3.4.3 Differences from the 1980 Findings

Since sampling errors both for the present study and for the NIS-1 were estimated, the differences reported here between the two studies as statistically significant are, with high probability, *real differences in incidence as measured by each study*. Moreover, the present study was designed to provide the best possible estimates of the current incidence of child maltreatment, in less time and at lower cost than the NIS-1. Considerable effort was directed toward insuring that the estimates include all cases of child maltreatment recognized by participants during the study period. To this end, the earlier design was modified in a variety of ways (see Chapter 2) in order to maximize the *validity of current estimates* of incidence.

The following were reliable (i.e., statistically significant) differences between the findings of the two studies:

- Countable cases of maltreatment increased significantly (by 66%) over their 1980 incidence rate.
- The increase in countable cases primarily reflected a significant increase (of 74%) in the incidence of abuse.
- Among the abuse cases, there were significant rises in the incidence of physical and sexual abuse, with physical abuse increasing by 58% and sexual abuse occurring at more than triple its 1980 rate in 1986.
- Neither emotional abuse nor any form of neglect showed reliable changes in incidence rate since the earlier study.
- The only significant change in level of maltreatment-related injuries occurred in the category of moderate injury, which showed an 89% increase in its rate of incidence since the 1980 study. This suggested that the overall increase in countable cases of maltreatment may have largely been due to an increased likelihood that professionals would recognize maltreatment, rather than to any increase in incidence per se.

4. SPECIFIC FORMS OF MALTREATMENT

This chapter presents incidence estimates for each of the specific forms within the more general maltreatment categories--physical abuse, sexual abuse, emotional abuse, physical neglect, educational neglect, and emotional neglect. It is organized into seven sections. The first section presents a tabulation of the perpetrator and harm requirements under the different definitional standards for each specific form of maltreatment. The following six sections focus on the general maltreatment categories. Each discusses the specific forms within one of these general subcategories, overviewing the definitions of each specific form, presenting incidence estimates under both original and revised standards, and considering any statistically significant changes in incidence since 1980.

As in previous chapters, tables given here provide incidence estimates in terms of both rates (number of maltreated children per 1,000 children in the population) and total number of maltreated children nationwide. Children are included under each applicable form of maltreatment,[1] so the entries within each table sum to more than the total children who experienced maltreatment in the general category in question.

4.1 Original vs. Revised Definitions

As was indicated in Chapter 2, the original and revised definitions differed in the requirements concerning the harm to the child and the perpetrator of maltreatment. Within each set of definitional standards, harm and perpetrator requirements also differed across the specific forms of maltreatment. Table 4-1 indicates these requirements under the original and revised standards for each specific form of maltreatment. Throughout this chapter, the text refers back to the entries in this table, as definitions and estimates are given for each specific form of maltreatment.[2]

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[1] Up to three distinct forms of maltreatment were coded for any given child.

[2] For more detailed specifications concerning definitions, see Report on Data Processing and Analysis.

Table 4-1. Relationship of original definitional standards used in NIS-1 and in NIS-2 for comparable estimates to the final revised definitional standards used in NIS-2 for supplementary estimates.

MALTREATMENT	ORIGINAL STANDARDS		REVISED STANDARDS	
	PERPETRATOR	HARM	PERPETRATOR	HARM
I. PHYSICAL ABUSE:				
Committing	Adult caretaker	Moderate	-	Endangerment
Permitting	Parent	Moderate	-	Endangerment
II. SEXUAL ABUSE:				
Intrusion				
Committing	Adult caretaker	Assumed	Teen/adult caretaker	-
Permitting	Parent	Assumed	Teen/adult caretaker	-
Genital molestation				
Committing	Adult caretaker	Assumed	Teen/adult caretaker	-
Permitting	Parent	Assumed	Teen/adult caretaker	-
Other or unknown				
Committing	Adult caretaker	Moderate	Teen/adult caretaker	Endangerment
Permitting	Parent	Moderate	Teen/adult caretaker	Endangerment
III. EMOTIONAL ABUSE:				
Tying or binding				
Committing	Adult caretaker	Assumed	-	-
Permitting	Parent	Assumed	-	-
Other close confinement				
Committing	Adult caretaker	Moderate	-	Endangerment
Permitting	Parent	Moderate	-	Endangerment
Verbal or emotional assault				
Committing	Adult caretaker	Moderate	-	Endangerment
Permitting	Parent	Moderate	-	Endangerment
Other or unknown abuse				
Committing	Adult caretaker	Moderate	-	Endangerment
Permitting	Parent	Moderate	-	Endangerment

	MALTREATMENT	ORIGINAL STANDARDS		REVISED STANDARDS	
IV.	PHYSICAL NEGLECT:	PERPETRATOR	HARM	PERPETRATOR	HARM
	Refusal of health care	Parent	Moderate	-	Endangerment
	Delay in health care	Parent	Serious	-	Endangerment
	Abandonment	Parent	Assumed	-	-
	Expulsion/refusal of runaway	Parent	Assumed	-	-
	Other custody-related maltreatment	Parent	Moderate	-	Endangerment
	Inadequate supervision	Parent	Serious	Adult caretaker	Endangerment
	Other physical neglect	Parent	Serious	Adult caretaker	Endangerment
V.	EDUCATIONAL NEGLECT:				
	Permitted chronic truancy	Parent	Assumed	-	-
	Other truancy/failure to enroll	Parent	Assumed	-	-
	Inattention to special educational need	Parent	Assumed	-	-
VI.	EMOTIONAL NEGLECT:				
	Inadequate nurturance/affection	Parent	Serious	-	Endangerment
	Chronic/extreme spouse abuse	Parent	Serious	-	Endangerment
	Permitted drug/alcohol abuse	Parent	Serious	-	Endangerment
	Permitted other maladaptive behavior	Parent	Serious	-	Endangerment
	Refusal of psychological care	Parent	Moderate	-	Endangerment

MALTREATMENT	ORIGINAL STANDARDS		REVISED STANDARDS	
	PERPETRATOR	HARM	PERPETRATOR	HARM
Delay/failure of psychological care	Parent	Serious	-	Endangerment
Other inattention to emotional needs	Parent	Serious	-	Endangerment
VII. OTHER:				
General or unspecified neglect[a]	N/A	N/A	Parent	Endangerment
Other or unspecified maltreatment[b]	N/A	N/A	Adult caretaker	Endangerment

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- Not changed, original NIS-1 standards were used without revision.

N/A Not applicable, original NIS-1 standards did not include this as a countable category of maltreatment.

[a] Classified under "All neglect" in Revised Definitional Standards. (Not countable under Original Standards).

[b] Classified under "All Maltreatment" in Revised Definitional Standards. (Not countable under Original Standards).

4.2 Physical Abuse

The category of physical abuse was unique in that it was not broken down into any more specific forms of maltreatment. Since the findings for the category of physical abuse were presented and discussed in the previous chapter, they are not reiterated here. Table 4-1 indicates that only the harm requirement for this form of maltreatment was changed under the revised standards--relaxing the criterion from one of moderate demonstrable harm to one of endangerment.

4.3 Sexual Abuse

Children who experienced any one of three specific forms of sexual abuse were counted in estimates of the overall incidence of sexual abuse. The three forms of sexual abuse reflected different kinds of acts:

Intrusion
Evidence[3] of actual penile penetration--whether oral, anal, or genital, homosexual or heterosexual--was required for this form of maltreatment.

Molestation with Genital Contact
This form of maltreatment involved acts where some form of actual genital contact had occurred, but where there was no specific indication of intrusion. When intrusion had been coded for a given child, molestation was not also coded unless it reflected a distinctly different type of event in the child's experience (e.g., involved different perpetrators).

Other or Unknown Sexual Abuse
This category was used for unspecified acts not known to have involved actual genital contact (e.g., fondling of breasts or buttocks, exposure) and for allegations concerning inadequate or inappropriate supervision of a child's voluntary sexual activities.

As given in Table 4-1, no direct evidence of injury was required for the first two forms of sexual abuse to be countable under either the original or revised definitional standards. That is, it was assumed that sexual abuse involving intrusion is inherently traumatic and injurious to a child, hence when the situation fit the definitional criteria in all other respects, injury was simply assumed to have occurred. For cases classified under the third form of sexual abuse ("other or unknown") to be countable according to the original definitional standards, circumstantial or direct evidence of at least moderate physical or emotional injury/impairment was required. The revised definitions relaxed this criterion to allow cases where a child was considered "endangered" as a result of other or unknown sexual abuse.

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[3] Evidence means credible information (e.g., the perpetrator acknowledged his actions). As in the NIS-1, the term does not have a technical meaning here, either legal or medical.

Under the original definitions, any of these three specific forms of maltreatment was countable only when it was perpetrated by an adult caretaker or had been either perpetrated or permitted by a parent/substitute. The revised definitional standards expanded the set of countable cases to also include cases where a caretaker had permitted these forms of maltreatment and where the caretaker was a teenager or not clearly of adult status.[4]

Table 4-2 presents the estimates for the specific forms of sexual abuse, under all definitions and for both the NIS-1 and the NIS-2. As indicated earlier, the specific forms can sum to more than the total of children who were sexually abused, because a given child could experience more than one form of sexual abuse and so be counted in more than one row of the table. This table shows that among cases of sexual abuse which were countable under the original definitions in 1986, genital molestation was the most commonly-occurring form, with intrusion and "other or unknown" sexually abusive acts representing progressively smaller components of the total. Specifically, an estimated 1.0 children per 1,000 (or 65,800 nationwide) had been genitally molested, reflecting 45% of all the children who had been sexually abused; 0.7 children per 1,000 (or 43,200 children) had suffered intrusion, which reflects 32% of all those sexually abused; and 0.5 children per 1,000 (or 29,400 nationwide) had experienced "other or unknown" forms of sexual abuse, which is 23% of all the children who had been sexually abused.

When revised definitions were used, the estimated incidence of each form of sexual abuse increased by about 0.1 child per 1,000. Note that the numerical increase was slightly larger for the "other or unknown" category, where revised standards expanded both perpetrator and harm requirements beyond those allowable under the original definitional standards.

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[4] The expansion of the perpetrator age criterion allowed teenage as well as adult caretakers; the expansion of the criterion concerning the perpetrator's relationship to the child allowed other caretakers as well as parents/substitutes to permit this abuse.

Table 4-2. Incidence of specific forms of sexual abuse

		Original Definitions			1986
	Form	1980	1986	1980-86 Increase	Revised Definitions
RATES[a]	Intrusion	0.3	0.7	0.4*	0.8
	Genital Molestation	0.2	1.0	0.8*	1.1
	Other or Unknown	0.1	0.5	0.4*	0.6
	Total Sexual Abuse	0.7	2.2	1.5*	2.5
TOTALS[a]	Intrusion	20,500	43,200	22,700*	48,400
	Genital Molestation	15,300	65,800	50,500*	70,300
	Other or Unknown	8,100	29,400	21,300*	37,600
	Total	42,900	138,000	95,100*	155,900

*The differences in rate of incidence between 1986 and 1980 were significant at the $p < .05$ level.

[a] Per 1,000 children in the population.

[b] Total number of children rounded to the nearest 100; not adjusted by population totals.

In Chapter 3, it was reported that the incidence of sexual abuse as a category increased significantly since the 1980 national incidence study. Here, it can be seen that this increase occurred for each of the specific forms of sexual abuse. However, proportionally greater increases occurred for genital molestation and for "other or unknown" sexual abuse. In 1986, estimates for both of these forms of sexual abuse were more than three times their 1980 levels. Note that this pattern of increases led to a reordering of the forms of sexual abuse in terms of their relative frequency of occurrence: in 1980, intrusion had been the most frequently-occurring form of sexual abuse, whereas (as noted above) genital molestation was most frequent in the 1986 data.

4.4 Emotional Abuse

The category of emotional abuse encompassed three distinct forms of maltreatment:

Close Confinement (Tying or Binding and Other Forms)
Tortuous restriction of movement, as by tying a child's arms or legs together or binding a child to a chair, bed, or other object, or confining a child to an enclosed area (such as a closet) as a means of punishment.[5]

Verbal or Emotional Assault
Habitual patterns of belittling, denigrating, scapegoating, or other nonphysical forms of overtly hostile or rejecting treatment, as well as threats of other forms of maltreatment (such as threats of beating, sexual assault, abandonment, etc.).[6]

Other or Unknown Abuse
Overtly punitive, exploitative, or abusive treatment other than those specified under other forms of abuse, or unspecified abusive treatment. This form includes attempted or potential physical or sexual assault,[7] deliberate withholding of food, shelter, sleep, or other necessities as a form of punishment, economic exploitation, and unspecified abusive actions.

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[5] Does not include generally accepted practices such as use of safety harnesses on toddlers, swaddling of infants, or discipline involving "grounding" a child or restricting a child to his/her room.

[6] This category was not used if verbally assaultive or abusive treatment occurred simultaneously with other abusive behavior (e.g., during a physical beating) unless adverse effects occurred which were separate and distinct from those in the other category.

[7] Where actual physical contact did not occur (e.g., throwing something at the child).

In order for cases to be countable under the original definitional standards, Table 4-1 indicates that these forms of maltreatment had to be perpetrated by an adult caretaker, or permitted by a parent/substitute. Moreover, except for the more extreme forms of close confinement (i.e., except for abuse involving tying or binding), circumstantial or direct evidence of at least moderate injury/impairment was required. This was not required when tying or binding was involved, however, since harm was automatically assumed in those cases, given the extreme nature of the abuse itself.

As shown in Table 4-1, the revised definitions did not alter the perpetrator requirements on these forms of abuse, but did expand the harm requirement to allow cases where the child was judged to have been endangered, though not yet actually injured or impaired, by the maltreatment in question.

Table 4-3 provides the incidence estimates for these maltreatment forms. It indicates that, under either set of definitional standards and in both 1980 and 1986, verbal or emotional assault was by far the most frequently-occurring form of maltreatment in the emotional abuse category. In 1986, under original definitional standards, 1.9 children per 1,000, or 120,800 children nationwide, had been verbally or emotionally assaulted. This amounted to 68% of the emotionally abused children. In contrast, 29% had experienced "other or unknown abuse," and only 5% had been victims of close confinement. The same percentages were found for the incidence of specific forms of emotional abuse under the revised definitions.

Although, as has been reported, there was not a significant change in the overall incidence of the category of emotional abuse, the incidence of "other or unknown" abuse has substantially increased since 1980, and this increase was statistically significant. This specific form of maltreatment nearly doubled in estimated incidence since the 1980 study. This result is not so surprising, however, in view of the fact that both physical abuse and sexual abuse demonstrated overall increases, and "other or unknown" maltreatment included attempted assaults of both types as well as any abusive actions not specifically referred to in the descriptions of any of the other forms of abuse.

Table 4-3. Incidence of specific forms of emotional abuse

		Original Definitions			1986
	Form	1980	1986	1980-86 Increase	Revised Definitions
RATES[a]	Close Confinement	0.05	0.14	0.08	0.18
	Verbal or Emotional Assault	1.8	1.9	0.1	2.3
	Other or Unknown Abuse	0.3	0.8	0.5*	1.0
	Total	2.1	2.8	0.7	3.4
TOTALS[b]	Close Confinement	3,200	8,700	5,500	11,100
	Verbal or Emotional Assault	115,200	120,800	5,600	144,300
	Other or Unknown Abuse	18,300	51,700	33,400 *	63,200
	Total	132,700	174,400	41,700	211,100

*The differences in rate of incidence between 1986 and 1980 were significant at the $p < .05$ level.

[a] Per 1,000 children in the population.

[b] Total number of children rounded to the nearest 100; not adjusted by population totals.

4.5 Physical Neglect

The seven specific forms of physical neglect are listed in Table 4-1. The first two reflect inattention to remedial health care needs, the next three all involve custody-related maltreatment, and the last two forms involve inadequate supervision and other types of physical neglect. The acts or omissions that were classified under each of these forms of maltreatment were:

Refusal of Health Care
Failure to provide or allow needed care in accord with recommendations of a competent health care professional for a physical injury, illness, medical condition or impairment.[8]

Delay in Health Care
Failure to seek timely and appropriate medical care for a serious health problem which any reasonable layman would have recognized as needing professional medical attention.[9]

Abandonment
Desertion of a child without arranging for reasonable care and supervision. This category included cases where children were not claimed within two days, and where children were left by parents/substitutes who gave no (or false) information about their whereabouts.

Expulsion
Other blatant refusals of custody, such as permanent or indefinite expulsion of a child from the home without adequate arrangement for care by others, or refusal to accept custody of a returned runaway.

Other Custody Issues
Custody-related forms of inattention to the child's needs other than those covered by abandonment or expulsion. For example, repeated shuttling of a child from one household to another due to apparent unwillingness to maintain custody, or chronically and repeatedly leaving a child with others for days/weeks at a time.

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[8] This category did not apply to treatment needs concerning educational, emotional, or behavior problems, which were classified under educational neglect and/or emotional neglect, as described in subsequent sections.

[9] Lack of preventive health care, such as failure to have the child immunized, was not included here. It was classified under "general neglect," defined in a later section.

Inadequate Supervision

Child left unsupervised or inadequately supervised for extended periods of time or allowed to remain away from home overnight without the parent/substitute knowing (or attempting to determine) the child's whereabouts.[10]

Other Physical Neglect

Conspicuous inattention to avoidable hazards in the home; inadequate nutrition, clothing, or hygiene; and other forms of reckless disgregard of the child's safety and welfare, such as driving with the child while intoxicated, leaving a young child unattended in a motor vehicle, and so forth.[11]

The harm and perpetrator requirements for these forms of maltreatment are given in Section IV of Table 4-1. Under the original definitions, all forms of physical neglect had to be perpetrated by parents/substitutes. Under the revised definitions, other adult caretakers were allowable perpetrators of the last two forms of physical neglect: inadequate supervision, and other physical neglect. As outlined in Table 4-1, the harm required for physical neglect cases to be countable under the original definitions ranged from none (since harm was assumed to have occurred for the traumatic occurrences of abandonment and expulsion), through evidence of moderate injury/impairment (for refusal of health care, and for "other" custody-related maltreatment), to serious injury/impairment (for delay in health care, inadequate supervision, and other physical neglect). Under the revised definitions, cases were countable if a respondent judged the child to have been endangered by the acts in question, or if CPS officially substantiated the case upon investigation.

Incidence estimates for the specific forms of physical neglect are given in Table 4-4. Note that, because the numerical codes for expulsion and "other custody issues" were not differentiated in the NIS-1 data, these two forms of physical neglect are combined in the table for all estimates reported under "original definitions." Again, because a given child could have experienced more than one form of physical neglect, the consitituent rows of Table 4-4 sum to more than the total children estimated to have experienced some form of physical neglect.

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[10] This form of maltreatment also covers cases where the child was temporarily locked out of the home.

[11] This does not include situations where the parents were financially unable to provide (or obtain through AFDC) reasonably safe, hygienic living conditions.

Table 4-4. Incidence of Specific Forms of Physical Neglect.

		Original Definitions			1986
	Form	1980	1986	1980-86 Difference	Revised Definitions
RATES[a]	Refusal of Health Care	0.6	1.1	+ 0.5[*]	1.1
	Delay in Health Care	0.2	0.2	0.0	0.6
	Abandonment	0.1	0.3	+ 0.2	0.3
	Expulsion	0.3	1.1	+ 0.8[*]	0.7
	Other Custody Issues				0.5
	Inadequate Supervision	0.1	0.1	0.0	3.0
	Other Physical Neglect	0.4	0.2	- 0.2[*]	3.5
	Total	1.6	2.9	+ 1.3	9.1
TOTALS[b]	Refusal of Health Care	39,100	70,000	+ 30,900[*]	71,600
	Delay in Health Care	15,600	13,300	- 2,300	37,700
	Abandonment	6,400	17,100	+ 10,700	17,100
	Expulsion	18,100	70,600	+ 52,500[*]	45,300
	Other Custody Issues				34,300
	Inadequate Supervision	6,600	3,800	- 2,800	192,100
	Other Physical Neglect	23,000	12,500	- 10,500[*]	223,500
	Total	103,600	182,100	+ 78,500	571,600

[*] The differences in rate of incidence between 1986 and 1980 were nonsignificant but marginal, with $p < .10$.

[a] Per 1,000 children in the population.

[b] Total number of children rounded to the nearest 100; not adjusted by population totals.

In 1980, the most frequently-occurring forms of physical neglect under the original definitions were refusal of health care and the combined category involving expulsion and other custody issues. Each of these forms of maltreatment accounted for 38% of physically neglected children, with incidence estimated as 1.1 children per 1,000. The least frequently-occurring category of physical neglect under the original definitions was inadequate supervision, accounting for only 3% of physically neglected children, with only 0.1 children per 1,000 (or 1 child per 10,000) having experienced inadequate supervision countable under the original definitions.

When revised standards were applied to the 1986 data, the specific forms of physical neglect were dramatically reordered in terms of their relative frequency-of-occurrence: "Other physical neglect" and inadequate supervision emerged as far more frequent than any of the other forms in the category. Thirty-three percent of physically neglected children, or 3.0 children per 1,000 (or 192,100 nationwide) met the revised standards for inadequate supervision; and 38% of the physically neglected children (3.5 children per 1,000 or 223,500 nationwide) experienced maltreatment classifiable under "other physical neglect" according to the revised standards. The fact that these two forms shifted so strongly to the forefront when the revised standards were used is understandable considering that they were the most frequently alleged forms of physical neglect and that cases met the harm requirement under the revised definitions as long as the respondent judged the child to have been endangered by the maltreatment.

Although the overall increase since 1980 in the general category of physical neglect was not significant, Table 4-4 indicates that three of the component forms of physical neglect did show statistically marginal changes. Refusal of health care and the combined form including expulsion and other custody-related issues both showed marginal increases since 1980. Maltreatment classifiable under "other physical neglect" marginally decreased during the interim between the two studies, but the magnitude of this decrease was not very large (involving only 0.2 children per 1,000, or 10,500 children nationwide).

4.6 Educational Neglect

Educational neglect was broken down into three specific forms, as follows:

Permitted chronic truancy
Habitual truancy averaging at least five days a month was classifiable under this form of maltreatment if the parent/guardian had been informed of the problem and had not attempted to intervene.

Failure to enroll/other truancy
Failure to register or enroll a child of mandatory school age, causing the child to miss at least one month of school; or a pattern of keeping a school-age child home for nonlegitimate reasons (e.g., to work, to care for siblings, etc.) an average of at least three days a month.

Inattention to Special Educational Need
Refusal to allow or failure to obtain recommended remedial educational services, or neglect in obtaining or following through with treatment for a child's diagnosed learning disorder or other special education need without reasonable cause.

As shown in Table 4-1, there were no differences between the original definitions and revised definitions in the perpetrator and harm requirements for the category of educational neglect. Under both sets of standards, the parent/substitute was the required perpetrator for all three forms. Also, under both definitions and for all three forms, the harm criterion was considered to have been met[12] if the case fulfilled the descriptive requirements of the classification, on the assumption that the circumstances would necessarily impair a child's educational development to at least a moderate degree.

Table 4-5 presents incidence estimates for the specific forms of educational neglect. In the NIS-1 data, the codes did not distinguish between failure to enroll/other truancy and inattention to a special educational need, so combined incidence estimates are given for these forms in the first columns of the table.

In 1986, permitting chronic truancy was the most frequently-occurring form of educational neglect, with 76% of the educationally neglected children (3.5 of 4.6 per 1,000) having been allowed to continue habitually missing upwards of 25 percent of school days.

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[12] I.e., harm was automatically rated as moderate.

Table 4-5. Incidence of Specific Forms of Educational Neglect.

		Original Definitions			1986
	Form	1980	1986	1980-86 Increase	Revised Definitions
RATES[a]	Permitted chronic truancy	1.8	3.5	1.7	3.5
	Failure to Enroll/ Other truancy	0.9	1.2	0.3	1.1
	Inattention to Special Educational Need				0.1
	Total	2.7	4.6	1.9	4.6
TOTALS[a]	Permitted chronic truancy	115,400	219,000	103,600	220,000
	Failure to Enroll/ Other truancy	58,800	72,600	13,800	66,600
	Inattention to Special Educational Need				6,000
	Total	174,000	291,100	117,100	292,100

[a] Per 1,000 children in the population.

[b] Total number of children rounded to the nearest 100; not adjusted by population totals.

Since, for educational neglect, the same cases were identified as countable under both sets of definitions, one can examine the "Revised Definitions" column in Table 4-5 to see the relative frequency of the other two forms of educational neglect in the 1986 data. Failure to enroll/other truancy accounted for 24% of the educational neglect cases, with 1.1 children per 1,000 (or 66,600 children nationwide) having experienced this maltreatment. The least frequently-occurring form of educational neglect was inattention to a special educational need. This occurred to only 2% of the educationally neglected children (an estimated 0.1 children per 1,000, or 6,000 children nationwide).

In the previous chapter it was reported that the increase in incidence for education neglect as a category was not statistically significant. Here, none of the component forms of educational neglect are indicated to have shown any significant changes in incidence since 1980.

4.7 Emotional Neglect

Seven specific forms of emotional neglect were differentiated in the NIS-2:

Inadequate Nurturance/Affection
Marked inattention to the child's needs for affection, emotional support, attention, or competence.[13]

Chronic/Extreme Spouse Abuse
Chronic or extreme spouse abuse or other domestic violence in the child's presence.

Permitted Drug/Alcohol Abuse
Encouragement or permitting of drug or alcohol use by the child; cases of the child's drug/alcohol use were included here if it appeared that the parent/guardian had been informed of the problem and had not attempted to intervene.[14]

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[13] Cases of nonorganic failure to thrive were classified under this form of maltreatment in addition to other instances of passive emotional rejection of child or apparent lack of concern for child's emotional well-being or development. Not included here were overt expressions of hostility and rejection, which were classified under verbal/emotional abuse.

[14] Administering drugs to a child for nonmedical or nontherapeutic purposes was classified here when the child was of school-age (and hence likely to behaviorally predispose the child to self-administer the drugs), but was classified under "other or unknown abuse" for younger children.

Permitted Other Maladaptive Behavior

Encouragement or permitting of other maladaptive behavior (e.g., severe assaultiveness, chronic delinquency) under circumstances where the parent/guardian had reason to be aware of the existence and seriousness of the problem but did not attempt to intervene.

Refusal of Psychological Care

Refusal to allow needed and available treatment for a child's emotional or behavioral impairment or problem in accord with competent professional recommendation.

Delay in Psychological Care

Failure to seek or provide needed treatment for a child's emotional or behavioral impairment or problem which any reasonable layman would have recognized as needing professional psychological attention (e.g., severe depression, suicide attempt).

Other Emotional Neglect

Other inattention to the child's developmental/emotional needs not classifiable under any of the above forms of emotional neglect (e.g., markedly overprotective restrictions which foster immaturity or emotional overdependence, chronically applying expectations clearly inappropriate in relation to the child's age or level of development, etc.).

As can be seen in Table 4-1, the revised definitions made no changes in the perpetrator requirements for these forms of maltreatment, but uniformly relaxed the harm criteria to endangerment.

These seven specific forms had been collapsed into three subcategories in the NIS-1, as shown in Table 4-6, so combined incidence estimates are given for these forms in the first columns of the table to allow comparisons with the NIS-1 data.

Under the original definitions in 1986, the most frequently-occurring subcategory of emotional neglect was that which combined refusal or delay in obtaining needed psychological care with "other emotional neglect." This subcategory applied to 0.5 children per 1,000, or 31,200 children nationwide, and accounted for 63% of emotionally neglected children. The least frequently-occurring subcategory was that which combined inadequate nurturance/affection with chronic/extreme spouse abuse. That subcategory applied to 0.1 children per 1,000 (or 5,000 children nationwide) and accounted for 13% of children who had been emotionally neglected.

Table 4-6. Incidence of Specific Forms of Emotional Neglect.

		Original Definitions			1986
	Form	1980	1986	1980-86 Difference	Revised Definitions
RATES[a]	Inadequate Nurturance/Affection	0.4	0.1	- 0.3[*]	0.8
	Spouse Abuse				0.4
	Permitted Drug/ Alcohol Abuse	0.2	0.3	+ 0.1	0.7
	Permitted Other Maladaptive Behavior				0.4
	Refused Psych. Care	0.3	0.5	+ 0.2	0.4
	Delay in Psych. Care				0.4
	Other Emotional Neglect				0.9
	Total	0.9	0.8	- 0.1	3.5
TOTALS[b]	Inadequate Nurturance/Affection	24,900	5,000	- 19,900[*]	48,500
	Spouse Abuse				27,100
	Permitted Drug/ Alcohol Abuse	13,400	16,800	+ 3,400	44,900
	Permitted Other Maladaptive Behavior				24,200
	Refused Psych. Care	19,200	31,200	+ 12,000	24,400
	Delay in Psych. Care				25,700
	Other Emotional Neglect				57,600
	Total	56,900	52,200	- 4,700	223,100

[*] The differences in rate of incidence between 1986 and 1980 were significant at the $p < .05$ level.

[a] Per 1,000 children in the population.

[b] Total number of children rounded to the nearest 100; not adjusted by population totals.

As shown in Table 4-6, the most frequently-occurring form of emotional neglect under the revised definitions was the "other" category, which applied to 0.9 children per 1,000 (57,600 children nationwide) and accounted for 26% of emotionally neglected children. This was followed closely in relative frequency by inadequate nurturance/affection (0.8 children per 1,000, or 48,500 children nationwide) and then by permitting drug/alcohol abuse (0.7 children per 1,000 or 44,900 children nationally), which respectively accounted for 23% and 20% of emotionally neglected children. The incidence estimates for the remaining four specific forms of emotional neglect were very similar--all involving an estimated 0.4 children per 1,000, or between about 24,200 and 27,100 children nationwide).

Note that there was a significant decrease in the first of the subcategories listed in Table 4-6. The incidence of inadequate nurturance/affection and chronic/extreme spouse abuse decreased by 0.3 children per 1,000 (or by 19,900 children nationally). This was offset by the (nonsignificant) increases in the other subcategories in the table, so that the overall category of emotional neglect showed no significant change in incidence.

4.8 Other Maltreatment

Two other forms of maltreatment are listed in Table 4-1, where it is shown that these were countable only under the revised definitions:

General or Unspecified Neglect
Used for neglect allegations not classifiable elsewhere, for lack of preventive health care, and for unspecified forms of neglect or multiple neglect allegations none of which had been countable under the original definitions.

Other or Unspecified Maltreatment
Problems/allegations not classifiable elsewhere. These included maltreatment not specified as having involved abuse, neglect, or both; parent/substitute problems (such as alcoholism, prostitution, drug abuse) alleged to affected the child in unspecified ways; etc.

Maltreatment classifiable in either of these forms of maltreatment was countable under revised definitions only when the child was deemed to have been endangered by the situation or when CPS had officially substantiated or founded the case on the basis of this form of maltreatment.[15] It was estimated that 0.6 children per 1,000, or 38,600 nationwide, had experienced general or unspecified neglect countable under the revised definitions. These children were included in the totals of those who had experienced some form of neglect under these standards. "Other or unspecified maltreatment" was estimated to have occurred to 0.7 children per 1,000, or to a total of 44,300 in the nation in 1986. Although these children could not be differentiated as abused vs. neglected, they were included in the total when all those who had suffered some form of maltreatment countable under the revised definitions were considered.

4.9 Summary

The following were key findings concerning the incidence of specific forms of maltreatment:

- The most frequently specific form of sexual abuse was genital molestation. Under either set of definitions, it accounted for 45% of all sexually abused children. Original definitions identified an estimated 1.0 children per 1,000 (or 65,800 children nationwide) as genitally molested, whereas 1.1 children per 1,000 (or 70,300 nationwide) were countable as genitally molested under revised standards.

- All forms of sexual abuse increased significantly in the 1980-1986 interval.

- Under either set of definitional standards, verbal or emotional assault was the most frequently-occurring form of emotional abuse, accounting for 68% of the countable children. Under original definitions, 1.9 children per 1,000 (a total of 120,800 children) had been verbally or emotionally assaulted, whereas the figure was 2.3 per 1,000 (or 144,300) under the revised definitions.

- The only form of emotional abuse to evidence significant change in incidence since 1980 was "other or unknown" abuse, which more than doubled in the interval. It appeared that this increase might relate to the fact that both physical and sexual abuse had increased, and that attempted assaults of both types were classified in this "other or unknown" category.

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[15] It was necessary to add these as countable forms of maltreatment under the revised definitions in order to encompass all officially substantiated cases, which was the principal purpose of the new standards.

- Under original definitions, the most frequently-occurring forms of physical neglect were refusal of health care and expulsion/other custody issues, each accounting for 38% of the children countable as physically neglected under these standards. Each was estimated to have occurred to 1.1 children per 1,000 (or at least 70,000 children nationwide).

- Under revised definitions, the most frequently-occurring forms of physical neglect were inadequate supervision and "other physical neglect." Inadequately supervised children accounted for 33% of those countable as physically neglected under revised standards, (3.0 children per 1,000 or 192,100 total); 38% of the physically neglected children (3.5 children per 1,000, or 223,500 nationwide) had suffered other forms of physical neglect, such as inadequate food, clothing, nutrition, hazards in the home, or other disregard for their physical welfare.

- Under either set of definitions, the most frequent form of educational neglect was permitting chronic truancy, accounting for 76% of educationally neglected children (3.5 per 1,000, or about 220,000 nationwide).

- Under original definitions, most (i.e., 63%) emotionally neglected children had suffered a lack of needed psychological treatment or had experienced maltreatment classified as "other emotional neglect" (which included overprotection, inappropriate age expectations, etc.); these experiences were estimated to have occurred to 0.5 children per 1,000 or to 31,200 children nationwide.

- "Other emotional neglect" was also the most frequent form of emotional neglect under the revised definitions, where it alone accounted for 26% of children countable as emotionally neglected under these standards (having occurred to 0.9 children per 1,000, or 57,600 nationwide).

- Although the incidence for the overall category of emotional neglect did not change significantly since 1980, inadequate nurturance/affection (which also included chronic/extreme spouse abuse in the NIS-1 database) showed a significant decrease. An estimated 0.3 fewer children per 1,000 experienced this maltreatment (reflecting a decrease of 19,900 children nationwide).

5. CHARACTERISTICS OF MALTREATED CHILDREN AND THEIR FAMILIES

This chapter examines whether and how child and family characteristics related to the overall incidence of maltreatment or to its type and/or severity. The following sections discuss the effects of the child's sex, age, and race/ethnicity, of their family's income level and number of dependent children, and of the metropolitan status of their county of residence. Each section is organized around the following questions:

- Are there differences in type or severity of maltreatment that relate to the given characteristic? (e.g., Are males and females at risk for different types of maltreatment or does one sex experience more severe injury/impairment than the other?)
- If there are differences related to the characteristic, do the overall patterns of child maltreatment described in Chapter 3 still hold true for all children? (e.g., If there are sex differences in rates of abuse and neglect, does the overall pattern showing abuse to be more frequent than neglect still apply to both sexes, or is it only true for one?)
- Have there been any statistically significant changes since 1980 in the distribution of child maltreatment by the characteristic in question? (e.g., Did the increases in overall abuse since 1980 only occur for children of one sex and not the other?)

In each section, the first two of these questions are considered separately for results based on the original definitions versus those derived from the revised definitions. The last question is considered in relation to the NIS-1 results and the NIS-2 findings which are based on the original definitions.

As in the previous chapters, the tables given here present both the rate of maltreatment per 1,000 children in the population and the estimated total numbers of children in each category. However, to simplify the presentation here to the extent possible, tables in this chapter present incidence figures broken down by child or family characteristics only where these characteristics were found to have significant effects on maltreatment.[1]

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[1] Again, estimated totals are rounded to the nearest 100. Complete tables providing all estimates, variances, and confidence intervals for each subpopulation of children are contained in Appendices B, C, and D. The analyses comparing 1980 and 1986 results are given in Appendix E.

5.1 Child's Sex

5.1.1 Sex Effects (Using Original Definitions)

The incidence of overall maltreatment under the original definitions did not differ significantly as a function of the child's sex, but when maltreatment was broken down into abuse and neglect, differences did emerge. Females experienced abuse more often than males (11.1 vs. 7.4 per 1,000, for females and males, respectively). This corresponded to a total of 339,800 females having been abused in 1986 compared to 238,200 males. The pattern is given in Table 5-1.[2] The incidence of neglect did not vary with the child' sex.

Given this sex difference, it was important to consider whether or not the general distribution of abuse vs. neglect which was described in Chapter 3 was, in fact, applicable to both males and females. The reader will recall that slightly more than half (56%) of all children who were countable as maltreated under the original definitions had been abused and that slightly under half (48%) had been neglected.[3] The pattern for females was found to resemble the overall pattern, with 60% of the maltreated females abused (incidence rates and totals as in Table 5-1) and 45% neglected (8.2 per 1,000, or 251,900 females nationwide). Among male children, however, there was essentially no difference between the rates of abuse and neglect: 52% of all males had been abused (as in Table 5-1), and 53% had been neglected (7.6 per 1,000 males or 245,500 males nationwide).

Sex Differences in Abuse. Within the subcategories of abuse, only sexual abuse showed any significantly different rates of incidence as a function of the child's sex. Females were sexually abused almost four times as often as males. Specifically, 3.5 females per 1,000 compared to 0.9 males per 1,000 were sexually abused, corresponding to 107,000 female children and 30,400 male children nationwide in 1986.

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[2] It should be noted, in this and other tables in this chapter, that the numbers and rates given do not include cases with missing values on the characteristics of interest. Thus, the 0.3% children of unknown sex are excluded from Table 5-1.

[3] Since a given child could also experience both abuse and neglect, these percentages sum to more than 100 percent.

Table 5-1. Sex differences in maltreatment: original definitions

	Category	Males	Females
RATES[a]	All Abuse	7.4	11.1
	Sexual Abuse	0.9	3.5
	Probable Injury/Impairment	1.5	2.6
TOTALS[b]	All Abuse	238,200	339,800
	Sexual Abuse	30,400	107,000
	Probable Injury/Impairment	48,200	79,400

[a] Per 1,000 children of that sex in population.

[b] Total number of children not adjusted by population totals.

NOTE: Sex was unknown for 0.3% of the cases. See footnote 2.

Again, given this sex difference in maltreatment experiences, the relevance of the overall patterns given in Chapter 3 became important. In the overall pattern for abuse under the original definitions, physical abuse was most frequent, followed by emotional and then sexual abuse, which differed little from one another (see Table 3-3). Table 5-2 presents the incidence of the different forms of abuse separately for males and females. There, it can be seen that physical abuse was, in fact, the most prevalent form of abuse for both sexes. Note, however, that the difference in males' and females' experiences of sexual abuse did have implications for the relative incidence of the remaining two subcategories of abuse. In fact, the overall pattern in which sexual abuse emerged as only slightly lower in incidence than emotional abuse appears to have been a blend of the patterns for the two sexes. Males experienced emotional abuse more than twice as often as sexual abuse, whereas sexual and emotional abuse occurred about equally frequently among females.

Sex Differences in Severity of Injury/Impairment. Although there were no significant differences between the sexes in the severity of injury/impairment due to maltreatment, Table 5-1 lists "probable" injuries because there was a (nonsignificant) tendency for females to experience probable injuries more often than males.[4] "Probable" injuries predominated in only a few categories of maltreatment, and were especially prevalent in relation to sexual abuse. Thus, the slightly higher incidence of probable injuries among females appears to have been primarily a function of their particular vulnerability to sexual abuse.[5]

The general pattern seen in Chapter 3 (see Table 3-5) held for both sexes: injuries of moderate severity were most frequent; probable and serious injuries followed with similar levels of incidence; and fatalities occurred least frequently.

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[4] Tendencies were considered "marginal" if their statistical probability was less than 0.10 but greater than 0.05.

[5] Probable injuries are those where the nature of the maltreatment itself gave reasonable cause to assume that injury/impairment had probably occurred. They were the minimal level of injury/impairment given for those children who experienced the forms of maltreatment where harm was "Assumed" under the original definitions (see Table 4-1).

Table 5-2. Distribution of forms of abuse by child's sex: original definitions

	Category	Total	No. per 1,000	% All Abused
MALES	Physical Abuse	143,400	4.4	60
	Sexual Abuse	30,400	0.9	13
	Emotional Abuse	78,700	2.4	33
FEMALES	Physical Abuse	166,500	5.4	49
	Sexual Abuse	107,000	3.5	31
	Emotional Abuse	95,100	3.1	28

5.1.2 Sex Effects (Using Revised Definitions)

The findings concerning sex differences under the revised definitions essentially paralleled the patterns described above, except that all incidence figures were slightly elevated.

There was no significant sex difference in maltreatment overall, but a difference did emerge when abuse was distinguished from neglect. As given in Table 5-3, females were more likely to be abused than males: 13.1 females vs. 8.4 males per 1,000, or 401,700 females compared to 270,900 males having suffered abuse under the new definitions. The incidence of neglect did not show any relationship to the child's sex.

Despite the sex difference in abuse, both males and females retained the general pattern under the revised definitions, where neglect had a higher incidence than abuse (i.e., 63% of maltreated children were neglected while 42% were abused, under revised standards).[6]

Sex Differences in Abuse. Consistent with the pattern found under the original definitions, when revised standards were applied, only sexual abuse revealed differences associated with the sex of the child. As shown in Table 5-3, the rate of sexual abuse for females was again nearly four times its rate for males: 3.9 per 1,000 females, but only 1.1 per 1,000 males were sexually abused (reflecting totals of 121,000 females and 34,300 males nationwide).

With the revised definitions, the relative incidence of the three subcategories of abuse was the same as it was with the original definitions: physical abuse > emotional abuse > sexual abuse. Although physical abuse was the most frequently occurring form of abuse for both sexes, males and females again differed in their adherence to the general pattern concerning emotional and sexual abuse. As can be seen in Table 5-4, males were emotionally abused more than twice as often as they were sexually abused, while females were equally likely to be sexually or emotionally abused.

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[6] Here and throughout this chapter, when differences did not emerge, the exact incidence figures for subgroups are not described. Interested readers should consult Appendix C for detailed incidence estimates under revised definitions.

Table 5-3. Sex differences in maltreatment: revised definitions

	Category	Males	Females
RATES[a]	All Abuse	8.4	13.1
	Sexual Abuse	1.1	3.9
	Probable Injury/Impairment	2.0	3.5
TOTALS[b]	All Abuse	270,900	401,700
	Sexual Abuse	34,300	121,000
	Probable Injury/Impairment	65,600	108,000

[a] Per 1,000 children of that sex in population.

[b] Total number of children not adjusted by population totals.

NOTE: Sex was unknown for 0.7% of the cases. See footnote 2.

Table 5-4. Distribution of forms of abuse by child's sex: revised definitions

	Category	Total	No. per 1,000	% All Abused
MALES	Physical Abuse	161,300	5.0	60
	Sexual Abuse	34,300	1.1	13
	Emotional Abuse	93,000	2.9	34
FEMALES	Physical Abuse	195,700	6.4	49
	Sexual Abuse	121,000	3.9	30
	Emotional Abuse	117,500	3.8	29

Sex Differences in Severity of Injury/Impairment. Conforming to the pattern of results found with the original definitions, there was a marginal tendency for probable injury/impairment to occur more frequently among females than among males. Table 5-3 provides the comparative incidence figures on this measure. As discussed above in connection with the original definitions, the association of this category of injury with sexual abuse seems to be the basis for the sex difference here.

5.1.3 1980-1986 Differences Related to Child's Sex

None of the 1980-1986 differences related to the child's sex. This means that all changes in the incidence of maltreatment overall, and by maltreatment type and severity, applied equally to male and female rates of maltreatment. Thus, those patterns described in Chapter 3 as significant 1980-1986 differences occurred for both sexes and are not reiterated here.

5.1.4 Summary of Child's Sex as a Risk Factor

Analyses indicated that, in general, the pattern and distribution of child maltreatment was very similar for both males and females. However, under both the original definitions and the revised standards, females experienced more abuse overall than did males and this reflected primarily their greater susceptibility to being sexually abused. Their greater vulnerability to sexual abuse also made them more likely to experience "probable" injury/impairment in comparison to males. Finally, sex of child did not appear to relate to any of the changes observed between 1980 and 1986 study findings.

5.2 Age of Child

This section presents information concerning the relation between child maltreatment and the age of the child. Children were categorized into one of six age groups on the basis of their age as of their last birthday prior to the maltreatment: 0-2 years, 3-5 years, 6-8 years, 9-11 years, 12-14 years, and 15-17 years.

5.2.1 Age Effects (Using Original Definitions)

Maltreatment defined according to the original standards increased in incidence with increasing age. This age-related increase, which is graphically depicted in Figure 5-1, was statistically reliable up through age 8. The incidence estimates for the older age groups tended to be less reliable, because of greater variability in the experiences of the older children. As a result, the increases in the incidence of maltreatment after age 8 did not emerge as statistically significant.

Figure 5-1 also shows that there were age differences in both abuse and neglect, with maltreatment increasing with age in both cases. Specific analyses of the components of these patterns revealed that, for abuse, 0-2 year olds were significantly less abused than children in all the older age brackets and that the 3-5 year olds were significantly less abused than the 12-14 year olds. For neglect, children aged 5 years and under were significantly less neglected than older children, but other differences in overall neglect did not prove to be statistically reliable.

Given these age differences, the question concerning the relevance of the general pattern of findings described in Chapter 3 became important. The relationships between the incidence rates for abuse and neglect graphed in Figure 5-1 indicate that, in fact, the general pattern of there being slightly more abused than neglected children held for all but the very youngest and oldest children. At these extreme ages, there was somewhat more neglect than abuse, as can be seen in the graph in the cross-overs between abuse and neglect for these age groups.

Age Differences in Abuse. Within the subcategories of abuse, there were significant age differences for both physical and emotional abuse, and a marginal age trend for sexual abuse. Figure 5-2 illustrates these patterns graphically.

As for abuse overall, the incidence of physical abuse generally increased with increasing age. However, the only statistically reliable increase in physical abuse occurred between the 0-2 age group (with 2.1 children per 1,000 physically abused) and the 3-5 year olds

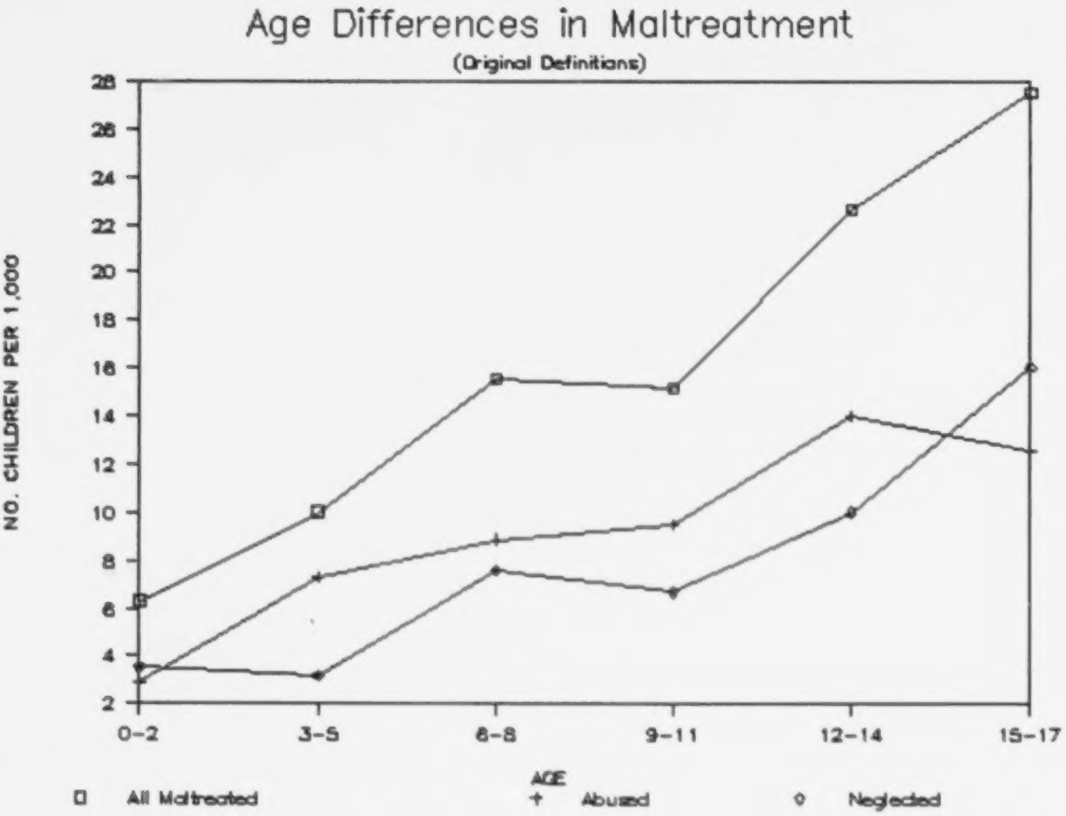
Age Differences in Maltreatment
(Original Definitions)
NO. CHILDREN PER 1,000
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0-2
3-5
6-8
9-11
12-14
15-17
AGE
□ All Maltreated
+ Abused
◇ Neglected

FIGURE 5-1

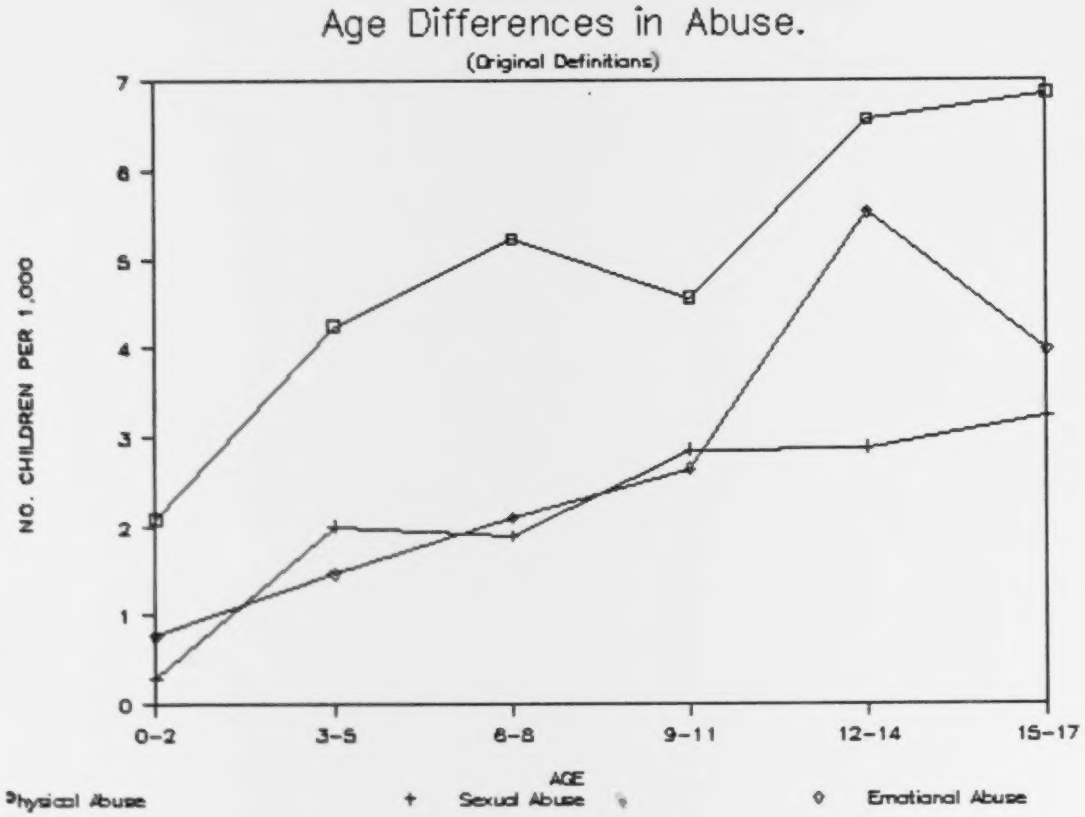
Age Differences in Abuse.
(Original Definitions)
NO. CHILDREN PER 1,000
0
1
2
3
4
5
6
7
0-2
3-5
6-8
9-11
12-14
15-17
AGE
Physical Abuse
Sexual Abuse
Emotional Abuse

FIGURE 5-2

(with 4.2 children per 1,000 maltreated). While all older age groups were significantly more physically abused than the 0-2 year olds, they did not differ significantly among themselves in rates of physical abuse. Again, this appeared to stem from the greater variability of their experiences, which decreased the reliability of the incidence estimates for the older age groups.

Emotional abuse also demonstrated age-related differences, as shown in Figure 5-2. Children aged 0-2 years had significantly lower incidence rates than children aged 6 years and older, and 3-5 year olds were less emotionally abused than children aged 12 years and older. Here again, however, there were no statistically reliable differences among the older children in their experiences of emotional abuse.

The marginal age trend for sexual abuse is also given in the figure. Subsidiary analyses revealed that the 0-2 year olds were significantly less likely to be sexually abused than any of the older children, but that the other age groups did not statistically differ from one another.

Age Differences in Neglect. The general age pattern for overall neglect, where children 5 years and younger emerged as less neglected, proved to result largely from the educational neglect pattern--the largest neglect category. This, in turn, reflected the fact that educational neglect was not an applicable category for children younger than school-age. The pattern is graphed in Figure 5-3. Note that there also appears to be a dramatic increase between the 9-11 and 15-17 year age brackets in the incidence of educational neglect. Although dramatic in its size, this trend turned out to be only marginally significant, largely due to the greater variability of the 15-17 year olds' experiences of educational neglect.

Age Differences in Severity of Injury/Impairment. There were significant age differences for two of the severity levels: fatalities and moderate injuries/impairments. As shown in Figure 5-4, the risk for fatalities as a result of maltreatment occurred largely in the lower age brackets. Figure 5-5 provides the incidence rates for moderate injuries/impairments for the different ages. Analyses revealed that moderate injuries occurred at significantly different rates for children five years and under compared to those 6 years and older, but failed to support the statistical reliability of the differences among the older age groups on this measure.

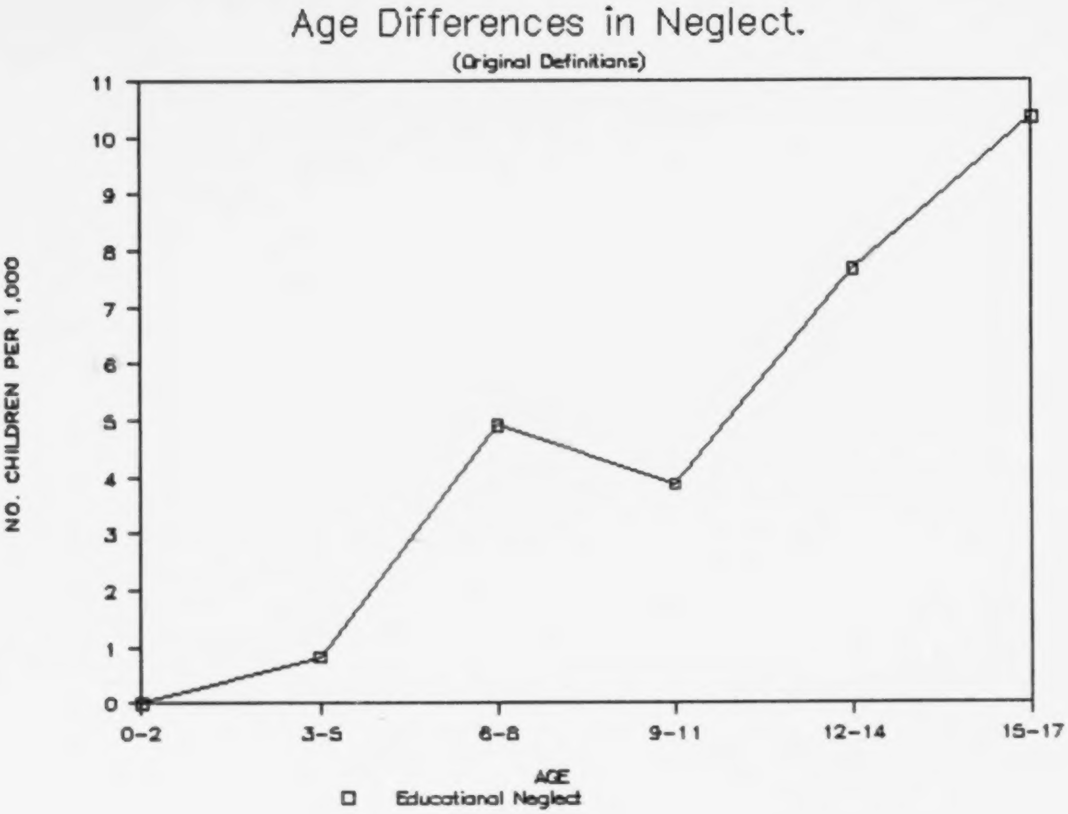
Age Differences in Neglect.
(Original Definitions)
NO. CHILDREN PER 1,000
0
1
2
3
4
5
6
7
8
9
10
11
0-2
3-5
6-8
9-11
12-14
15-17
AGE
□ Educational Neglect

FIGURE 5-3

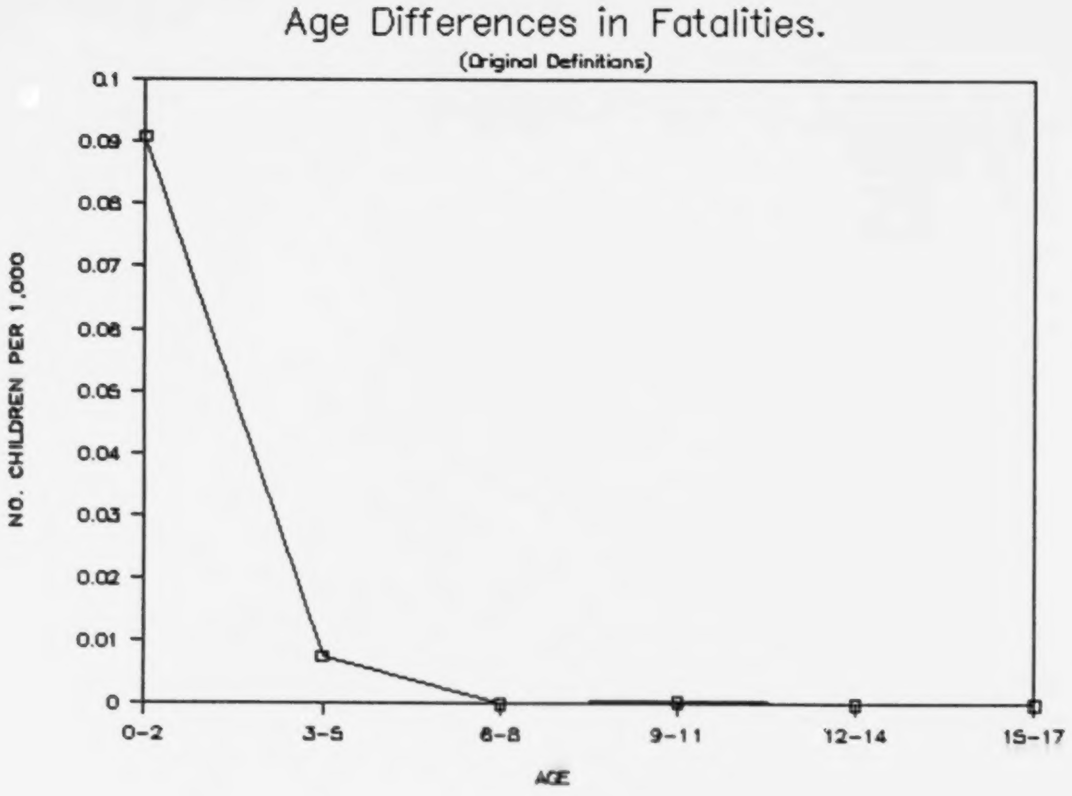
Age Differences in Fatalities.
(Original Definitions)
NO. CHILDREN PER 1,000
0.1
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
0-2
3-5
6-8
9-11
12-14
15-17
AGE

FIGURE 5-4

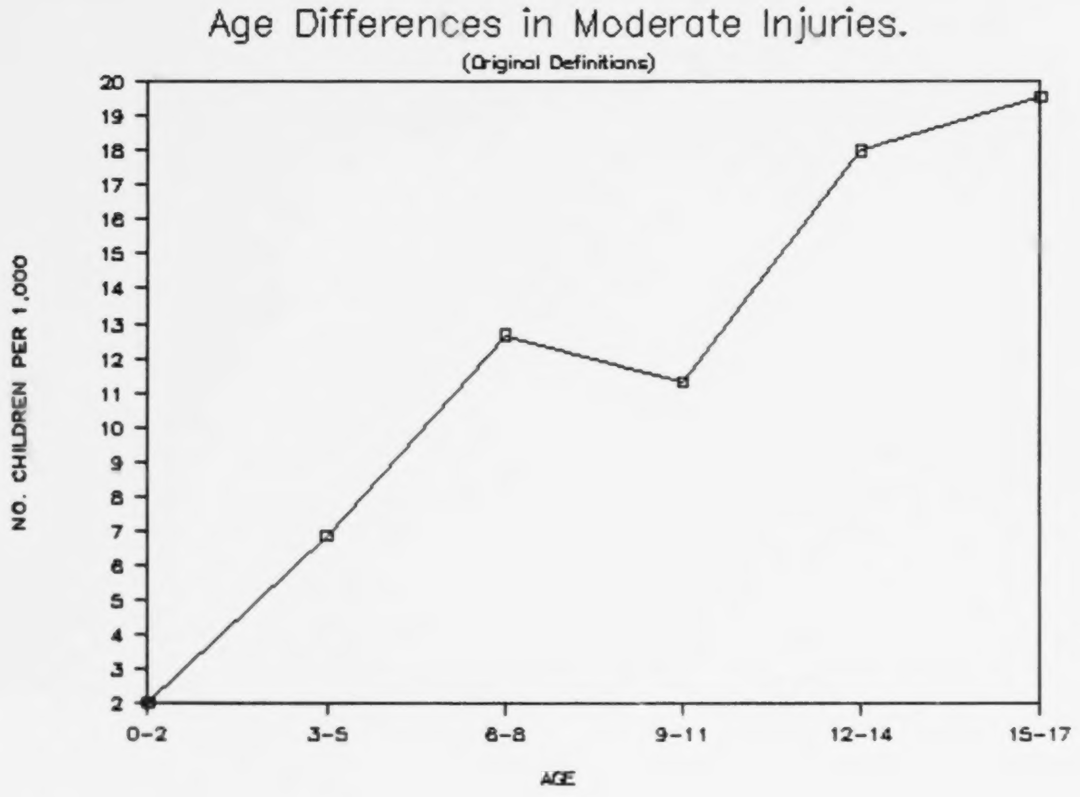
Age Differences in Moderate Injuries.
(Original Definitions)
NO. CHILDREN PER 1,000
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
0-2
3-5
6-8
9-11
12-14
15-17
AGE

FIGURE 5-5

Given these age differences, it was necessary to determine whether the general findings concerning the relative incidence of injuries/impairments of different severity held true for each age group. It was found that the relative distribution of the different levels of injuries generally did reflect the same pattern as those given for children overall in Chapter 3. Moderate injury/impairment was by far the most frequent category for all but the youngest age group. Among the 0-2 year olds, injuries/impairments were most often serious.

5.2.2 Age Effects (Using Revised Definitions)

The findings relating age to incidence under the revised definitions resembled the results for the original definitions in some respects and in other respects differed. Unlike the pattern described above, there were no age effects for maltreatment overall when revised standards were applied. Further, age differences only emerged in connection with abuse--the incidence of neglect as defined by revised standards was not associated with age. The pattern of abuse in relation to age is graphed in Figure 5-6. Subsidiary analyses showed that the 0-2 year olds were significantly less abused than the other age groups and that there was a marginal (nonsignificant) tendency for the 12-14 year olds to experience more abuse than children aged 0 through 8.

Age Differences in Abuse. Within abuse, only the subcategory of physical abuse proved to be associated with age, and the nature of this association is also shown in Figure 5-6. Children in the youngest age group were physically abused less often than those in other age groups, and 3-5 year olds tended to be less physically abused than children aged 12 and over.

Age Differences in Neglect. Although there were no age differences in neglect overall, two of the neglect subcategories did evidence age trends--educational and emotional neglect. These trends are depicted in Figure 5-7. Again, the fact that educational neglect is only defined for children of school age is a substantial basis of the relationship shown. Here, however, there was a marginal difference between the 15-17 year olds and 9-11 year olds, suggesting that this form of neglect may, in fact, increase reliably to some degree within the oldest age bracket.

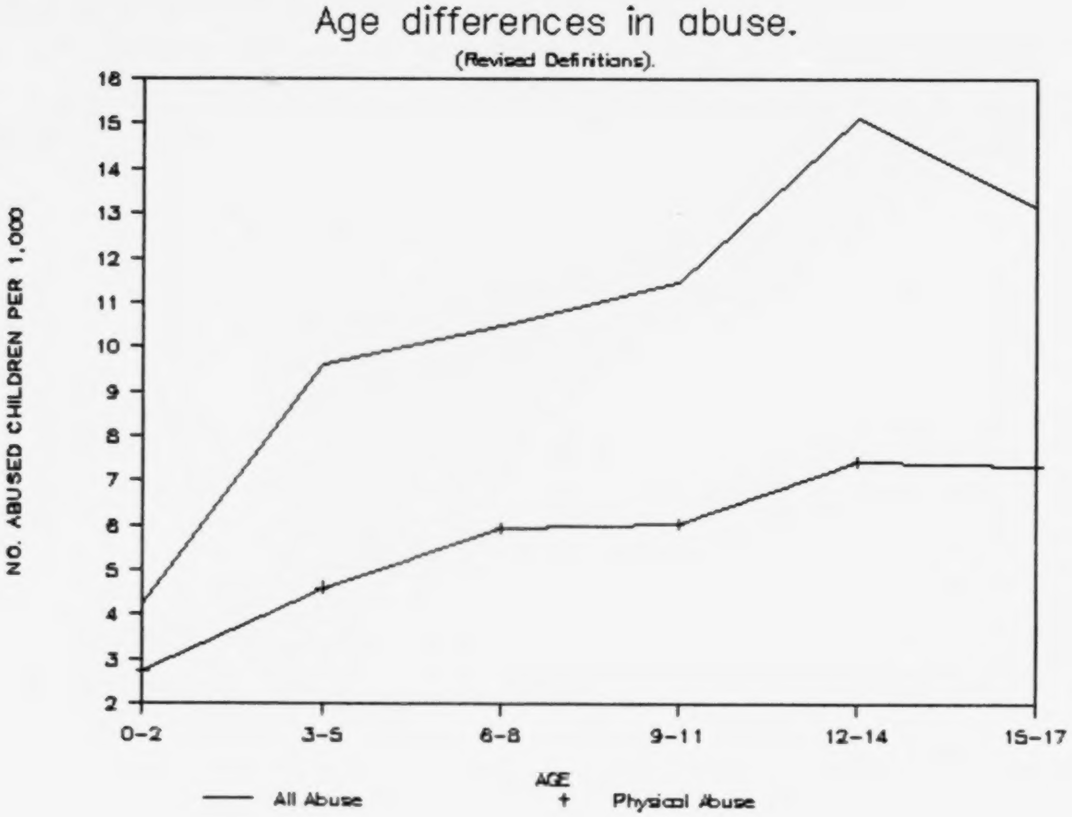
Age differences in abuse.
(Revised Definitions).
NO. ABUSED CHILDREN PER 1,000
18
15
14
13
12
11
10
9
8
7
6
5
4
3
2
0-2
3-5
6-8
9-11
12-14
15-17
AGE
All Abuse
+ Physical Abuse

FIGURE 5-6

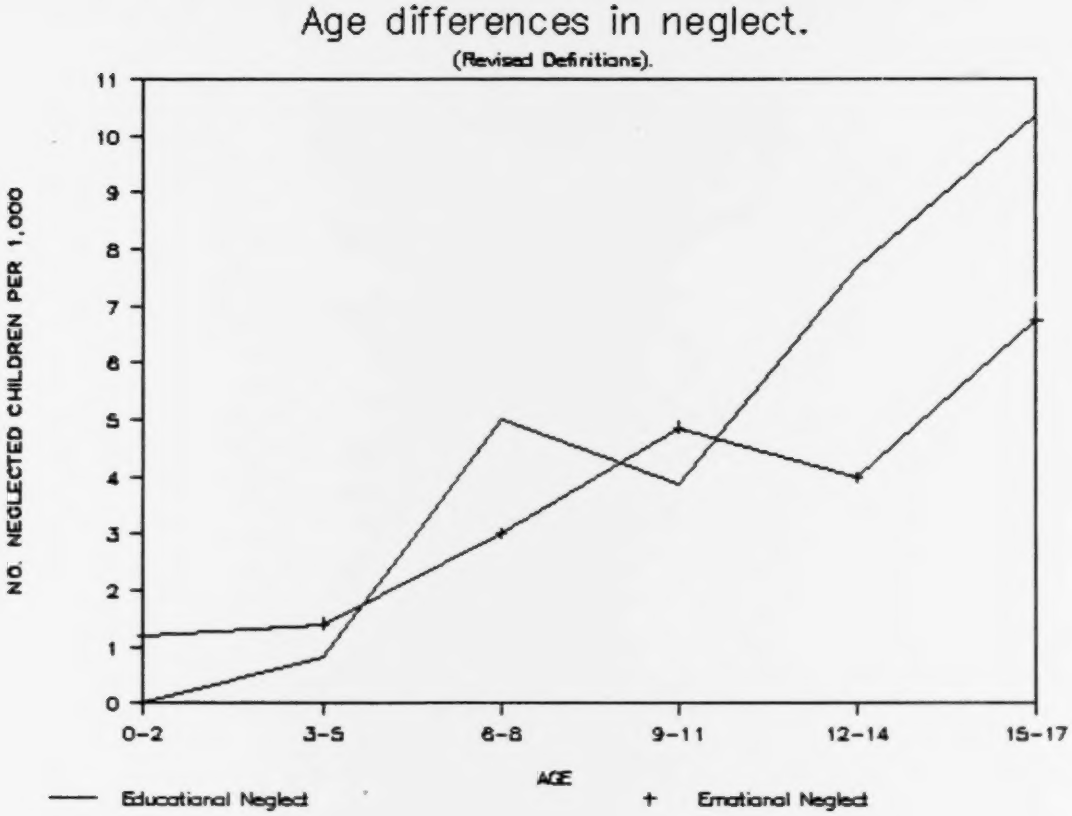
Age differences in neglect.
(Revised Definitions).
NO. NEGLECTED CHILDREN PER 1,000
0
1
2
3
4
5
6
7
8
9
10
11
0-2
3-5
6-8
9-11
12-14
15-17
AGE
Educational Neglect
+ Emotional Neglect

FIGURE 5-7

Emotional neglect under revised definitions also evidenced different incidence levels at different ages as given in Figure 5-7. The differences here are less dramatic, however. Follow-up analyses revealed that the younger two age groups had significantly lower rates of emotional neglect when compared with the three older age groups, and that the 6-8 year olds also differed from the 15-17 year olds. Thus, the risk for emotional neglect appears to climb gradually throughout the age spectrum.

Age Differences in Severity of Injury/Impairment. As for the cases which were countable under the original definitions, those countable under the revised standards revealed two significant associations with age: fatalities and moderate injuries or impairments. The function describing the changing risk for fatalities was virtually identical to that found using the original definitions. That function is graphed in Figure 5-4. The incidence of moderate injuries for maltreatment defined using the revised standards paralleled the function in Figure 5-5. Except for the overall elevation of the incidence of moderate injuries using the revised definitions, the two curves were virtually identical. Subsequent analyses revealed exactly the same pattern of significant intergroup differences: children aged 5 years and younger received significantly fewer moderate injuries than children aged 6 and older.

5.2.3 1980-1986 Differences Related to Child's Age

As described in Chapter 3, the overall examination of 1980-1986 differences (irrespective of child's age) indicated that there had been significant increases in abuse, but not in neglect, and that within the subcategories of abuse, these increases had occurred in both physical and sexual abuse (but not in emotional abuse). At the same time, moderate injuries/impairments had increased significantly above their 1980 levels.

With the exception of moderate injuries/impairments, child's age was found to be related to the magnitude of each of these increases. The incidence rates for all abuse, physical abuse, and sexual abuse are graphed for the two studies in Figures 5-8, 5-9, and 5-10, respectively. There, the fact that age is related to the 1980-1986 difference is apparent from the fact that the two lines in each graph are clearly not parallel. The nature of their relationship is evident from the fact that there is a general "fanning out" of the two curves as one moves into progressively higher age brackets. This "fanning out" indicates that the increases

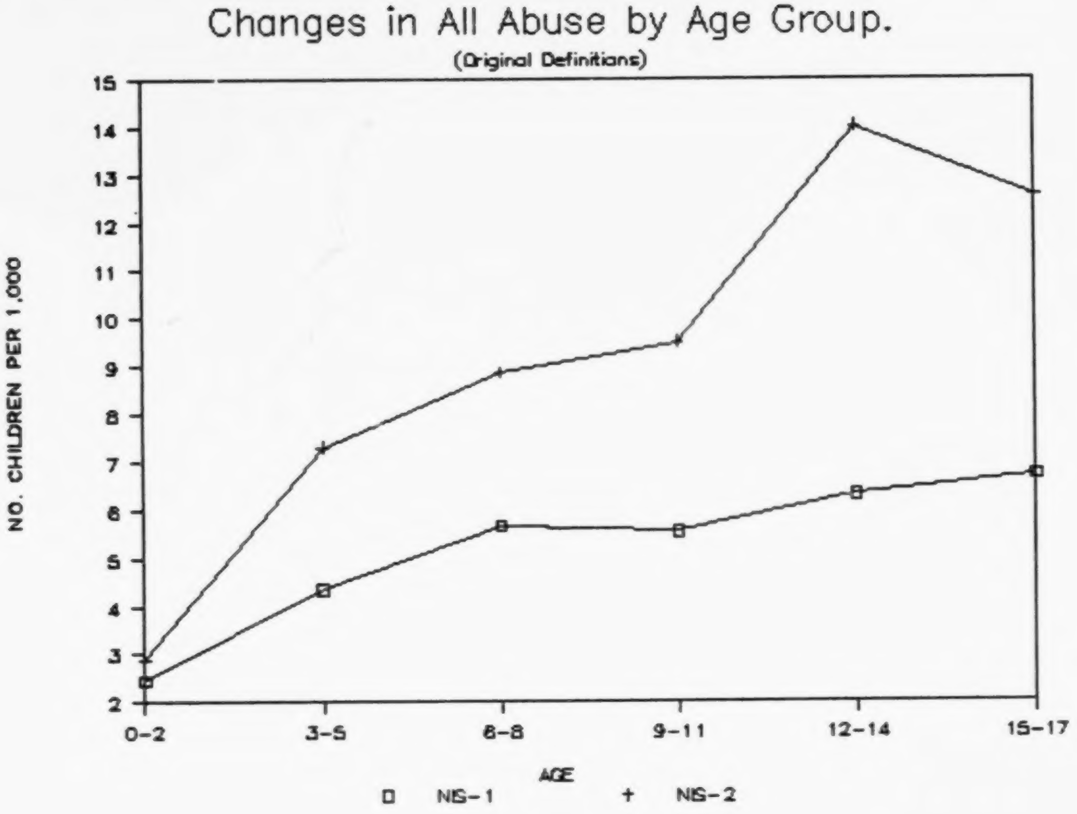
Changes in All Abuse by Age Group.
(Original Definitions)
NO. CHILDREN PER 1,000
15
14
13
12
11
10
9
8
7
6
5
4
3
2
0-2
3-5
6-8
9-11
12-14
15-17
AGE
□ NIS-1
+ NIS-2

FIGURE 5-8

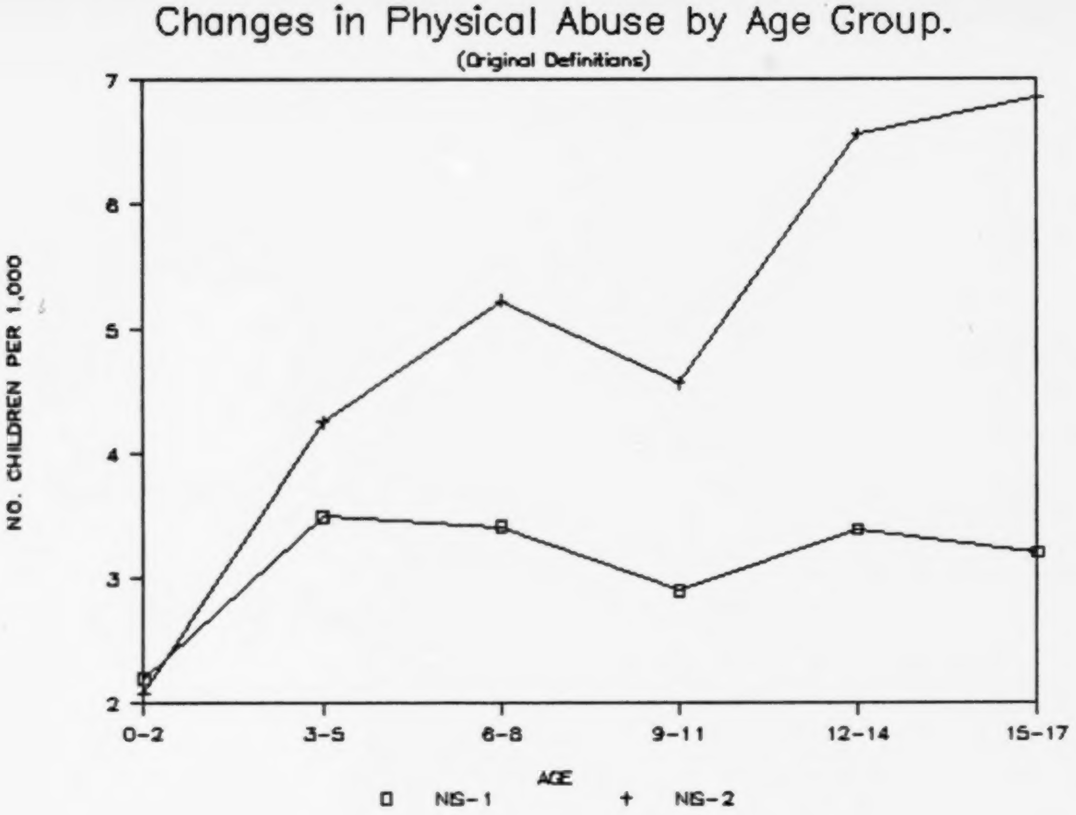
Changes in Physical Abuse by Age Group.
(Original Definitions)
NO. CHILDREN PER 1,000
7
6
5
4
3
2
0-2
3-5
6-8
9-11
12-14
15-17
AGE
□ NIS-1
+ NIS-2

FIGURE 5-9

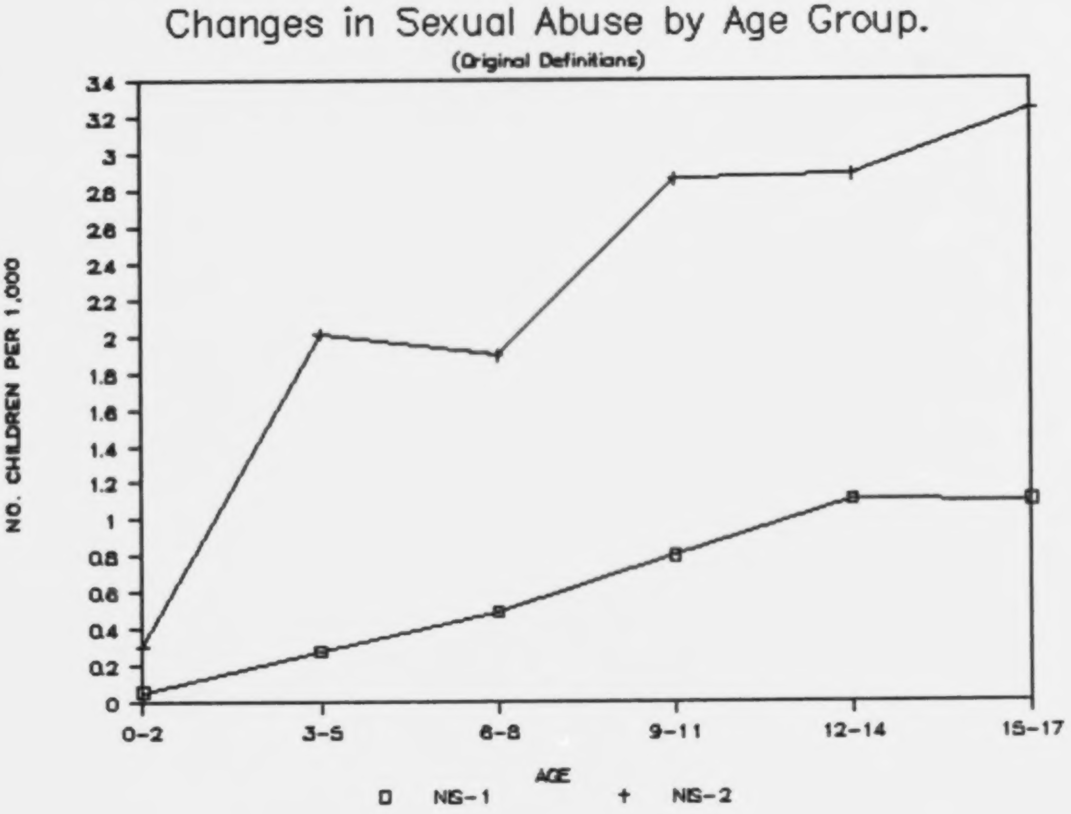
Changes in Sexual Abuse by Age Group.
(Original Definitions)
NO. CHILDREN PER 1,000
3.4
3.2
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0-2
3-5
6-8
9-11
12-14
15-17
AGE
NIS-1
NIS-2

FIGURE 5-10

since 1980 were progressively larger for successively older age brackets from birth through age 14. In fact, the 0-2 year olds experienced equivalent rates of abuse in 1986 and 1980 (2.9 per 1,000 in 1986 versus 2.4 per 1,000 in 1980 for overall abuse). Thus, the 1980-1986 increases in all abuse, physical abuse, and sexual abuse occurred disproportionately among older children.

Note also that the patterns in Figures 5-8 through 5-10 indicate that age was more strongly related to all abuse, and to physical and sexual abuse in the current study than it had been in the NIS-1. In fact, analyses indicated that physical abuse was not reliably related to age in the NIS-1 at all.

5.2.4 Summary of Child's Age as a Risk Factor

There were a number of notable patterns in the incidence of maltreatment as a function of the child's age.

Under the original definitions, the overall incidence of maltreatment increased with age, and this was reflected in both abuse and neglect. Within abuse, the age-related increase in maltreatment appeared for all subcategories of abuse. Within neglect, the increase was localized to the area of educational neglect. With the revised definitions, abuse, specifically physical abuse, did positively correlate with age. Although neglect under revised definitions had no overall association with age, two of the subcategories of neglect did appear to have age as a risk factor: educational neglect and emotional neglect. Again, children were at greater risk for these forms of maltreatment with increasing age.

Under both sets of definitions, fatal and moderate injuries showed age relationships, but of reversed patterns: fatalities were more numerous among the younger children, whereas moderate injuries followed the distribution of maltreatment overall and were more prevalent among older age brackets. Overall, it appeared that while the youngest children were not as frequently maltreated as older ones, when they did experience maltreatment it tended to be more injurious, perhaps due to their greater physical fragility in comparison to older children.

The 1980-1986 changes in the incidence of abuse and of two of its subcategories (physical and sexual) proved to have occurred disproportionately among the older age groups. Successive age groups generally showed progressively larger increases in the incidence of abuse over the 1980 levels. The fact that the relationship between maltreatment and age changed in these respects since 1980 implies that it may be more related to recognition than to the actual occurrence of maltreatment. This point is discussed further in the concluding chapter.

5.3 Child's Race/Ethnicity

To explore any relationships between the type and severity of maltreatment and child's race/ethnicity, children were classified into three major categories on the basis of the race/ethnicity information on the data forms: white, black, and other.

There were *no* significant relationships between the incidence of maltreatment and a child's race/ethnicity. Analyses performed using both the original definitions of maltreatment and the revised definitions, and conducted at every level of categorization (i.e., for maltreatment overall as well as for each subcategory of maltreatment and level of severity of injury/impairment) failed to reveal any reliable systematic relationship with race/ethnicity. Moreover, none of the overall 1980-1986 differences which were described in Chapter 3 proved to be differentially distributed across the different race/ethnicity categories (white, black, and other).

5.4 Family Income

Families were divided into those earning $15,000 or more and those earning less than $15,000 in 1986,[7] and relationships between this factor and the type and severity of child maltreatment were identified.

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[7] The NIS-2 data forms also provided for a third category: those earning $30,000 or more in 1986. There was, however, a substantial amount of missing data on this item (20.0% of cases under original definitions and 20.2% of cases under revised definitions), while only 6 percent of the cases with known values were classified in the $30,000 or more category. Under these circumstances, it seemed reasonable to collapse the two higher income categories for purposes of analysis.

5.4.1 Family Income Effects (Using Original Definitions)

Family income was found to have profound effects on the incidence of abuse and neglect. There were significant income-related differences on all measures except fatalities, and there the differences were marginal. Table 5-5 presents the distribution of child maltreatment defined according to the original standards across children classified into two categories on the basis of family income. Throughout the table, children from families whose income was less than $15,000 experienced more maltreatment and injury/impairment than did those from families with incomes greater than $15,000. The overall rate of maltreatment was more than 5 times higher among the lower income children who experienced maltreatment under the original definitions. These children were maltreated at a rate of 32.3 per 1,000 (representing 537,400 children nationwide), as compared to 6.1 children per 1,000 (reflecting 282,500 children) in the upper income group.

The rate of abuse was 4 times higher among lower income children (16.6 per 1,000 children in this income category, or 275,500 children nationwide) than among the children in higher income families (4.1 per 1,000, or 190,200 children nationwide). Neglect was nearly 8 times higher for the lower income children (17.3 per 1,000 or 287,800 children) compared to those from the higher income families (2.2 per 1,000 or 103,200 children). This affected the relative proportions of children who were abused vs. neglected in each case. The general pattern (discussed in Chapter 3) was for abuse to be more frequent than neglect. That was the case for upper income children, whose rate of abuse represented 67% of maltreatment in that group and whose rate of neglect represented only 36% of maltreatment. Among lower income children, however, the rates of abuse and neglect were quite similar, with abused and neglected children representing 51% and 54% of all those maltreated, respectively.

Income Differences in Abuse. Physical abuse was 3½ times more frequent among lower income children; sexual abuse was 5 times more frequent for children from the lower income families; and emotional abuse was nearly 4½ times more frequent for the lower income group. Despite the dramatic overall elevation of the incidence of abuse in the lower income group, the general pattern identified in Chapter 3 of physical abuse being more frequent than either sexual or emotional abuse held for both income groups.

Table 5-5. Differences in maltreatment based on family income: original definitions

	Category	Less than $15,000	$15,00 or more
RATES[a]	All Maltreatment	32.3	6.1
	All Abuse	16.6	4.1
	Physical Abuse	8.4	2.4
	Sexual Abuse	4.5	0.9
	Emotional Abuse	4.8	1.1
	All Neglect	17.3	2.2
	Physical Neglect	6.9	0.7
	Educational Neglect	10.1	1.3
	Emotional Neglect	1.5	0.3
	Fatal Injury/Impairment	0.03	0.01
	Serious Injury/Impairment	6.0	0.8
	Moderate Injury/Impairment	22.4	4.7
	Probable Injury/Impairment	4.0	0.6
TOTALS[b]	All Maltreatment	537,400	282,500
	All Abuse	275,500	190,200
	Physical Abuse	139,800	109,400
	Sexual Abuse	74,300	43,100
	Emotional Abuse	79,100	52,300
	All Neglect	287,800	103,200
	Physical Neglect	115,300	31,800
	Educational Neglect	167,300	58,400
	Emotional Neglect	25,100	14,900
	Fatal Injury/Impairment	500	300
	Serious Injury/Impairment	99,100	38,400
	Moderate Injury/Impairment	372,000	217,100
	Probable Injury/Impairment	65,900	26,700

[a] Per 1,000 children from families in that income category in the population.

[b] Total number of children not adjusted by population totals.

NOTE: Family income was unknown for 20% of the cases. See footnote 2.

Income Differences in Neglect. Incidence rates for all forms of neglect were considerably higher for the lower income children: physical neglect was nearly 10 times as frequent, educational neglect close to 8 times as frequent, and emotional neglect 5 times more frequent among children from lower income families. Still, the overall ordering of educational neglect > physical neglect > emotional neglect held true for all children, regardless of their family income level.

Income Differences in Severity of Injury/Impairment. As shown in Table 5-5, children from lower income families experienced more injury/impairment than did children from upper income families although the difference for fatalities was only statistically marginal. Among children from lower income families, fatalities were 3 times more frequent; serious injuries/impairments were 7½ times as frequent; moderate harm occurred at nearly 5 times the higher income rate; and probable injuries/impairments were almost 7 times as frequent for the children from the higher income families.

The most frequent category of injury/impairment resulting from maltreatment in both groups, as in the overall pattern seen in Chapter 3, was the moderate level, representing 69% of the injury/impairment in the lower income group and 77% in the upper income group. Serious injuries were second most frequent for both groups (19% for lower income and 13% for higher income children), followed closely by probable injuries (12% for lower income children and 10% for higher income children). Fatalities were the least frequent injury for all children, accounting for less than 0.2% of injuries regardless of income level.

5.4.2 Family Income Effects (Using Revised Definitions)

The same pervasive effects of family income were apparent when maltreatment was defined using the revised definitions. Significant differences between the income groups emerged in every category of maltreatment and injury/impairment except fatalities, and for that category the income-related difference approached significance (i.e., was statistically marginal). Table 5-6 presents the incidence of maltreatment according to family income under the revised definitions.

Table 5-6. Differences in maltreatment based on family income: revised definitions

	Category	Less than $15,000	$15,00 or more
RATES[a]	All Maltreatment	54.0	7.9
	All Abuse	19.9	4.4
	Physical Abuse	10.2	2.5
	Sexual Abuse	4.8	1.1
	Emotional Abuse	6.1	1.2
	All Neglect	36.8	4.1
	Physical Neglect	22.6	1.9
	Educational Neglect	10.1	1.3
	Emotional Neglect	6.9	1.5
	Fatal Injury/Impairment	0.03	0.01
	Serious Injury/Impairment	6.0	0.9
	Moderate Injury/Impairment	30.9	5.5
	Probable Injury/Impairment	5.4	0.9
	Severity-Endangered	11.7	0.6
TOTALS[b]	All Maltreatment	897,700	367,100
	All Abuse	330,300	204,100
	Physical Abuse	169,200	117,800
	Sexual Abuse	90,600	49,700
	Emotional Abuse	100,800	53,600
	All Neglect	611,800	188,900
	Physical Neglect	375,900	85,800
	Educational Neglect	168,300	58,400
	Emotional Neglect	114,400	70,200
	Fatal Injury/Impairment	500	300
	Serious Injury/Impairment	99,300	41,000
	Moderate Injury/Impairment	513,300	254,600
	Probable Injury/Impairment	90,000	41,000
	Severity-Endangered	194,600	30,100

[a] Per 1,000 children from families in that income category in the population.

[b] Total number of children not adjusted by population totals.

NOTE: Family income was unknown for 20.2% of the cases. See footnote 2.

Overall maltreatment under the revised definitions was almost 7 times more frequent among children from families whose income was less than $15,000 in 1986 (54.0 per 1,000 or 897,700 children nationwide) than among those from higher income families (7.9 per 1,000 or 367,100 overall). Abuse was 4½ times more frequent and neglect was nearly 9 times more frequent among lower income as compared to upper income children. (See Table 5-6 for rates and totals.)

The pattern discussed in Chapter 3 (where, under the revised definitions, neglect represented a greater percentage of all maltreatment than abuse) held for the lower income group, where 68% of the children experienced neglect (36.8 per 1,000) as compared to 37% (19.9 per 1,000) having experienced abuse. In contrast, among the upper income children, the proportions were approximately equivalent, with 51% (4.1 children per 1,000) of the upper income children having experienced neglect and 56% (4.4 children per 1,000) having experienced abuse.

Income Differences in Abuse. As shown in Table 5-6, in every category of abuse, children from lower income families were significantly more abused than those from upper income families. They were more than 4 times as likely to be physically abused or sexually abused and more than 5 times as likely to be emotionally abused. The relative frequencies of the different types of abuse within each group resembled that for the overall findings, with physical abuse the most frequent, followed by emotional and then by sexual abuse, although for upper income children the rates of emotional and sexual abuse were essentially equivalent.

Income Differences in Neglect. There were income-related differences in all categories of neglect. Children from lower income families were nearly 12 times as often physically neglected; were nearly 8 times as likely to be educationally neglected, and were emotionally neglected at more than 4½ times the rate of high income children. A greater proportion of the neglect of lower income children was physical (61%) than was the case among upper income children (46%). Educational neglect was more frequent than emotional neglect among lower income children (where it represented 27% of neglect, compared to the 19% represented by emotional neglect). Among upper income children, however, emotional neglect was about as frequent as educational neglect (representing 37% and 32% of neglect, respectively).

Income Differences in Severity of Injury/Impairment. At every level of severity, lower income children experienced more injury/impairment than upper income children. They suffered 3 times the fatalities, nearly 7 times the serious injuries, more than 5½ times the moderate injuries, and 6 times the probable injuries compared to the higher income children. Lower income children were considered endangered by maltreatment 19½ times as frequently as the higher income children. The distribution of the different severity levels within each income group essentially paralleled that of children overall. Moderate injury/impairment was by far the most frequently experienced level, representing 57% of the injury/impairment in the lower income group and 70% in the upper income group. The only deviation from the general pattern presented in Chapter 3 was that, while the endangered category was the second most frequent category for children overall and for lower income children, it was the least frequent category for children from the higher income families.

5.4.3 1980-1986 Differences Related to Family Income

Family income failed to affect any of the overall 1980-1986 differences. Thus, the changes described in Chapter 3 held equally well for both higher and lower income families.

5.4.4 Summary of Family Income as a Risk Factor

Low income was a significant risk factor for child maltreatment. Under the original study definitions, children from families whose 1986 income was less than $15,000 experienced significantly more maltreatment than those from families earning $15,000 or more. There was more frequent maltreatment and injury/impairment in every subcategory among the lower income children. The findings indicate that family income is a potent predictor of child maltreatment and of maltreatment-related injuries/impairments by any set of definitional standards.

5.5 Number of Children in Family

Children were categorized into one of three family size groups on the basis of the total number of children in their family: 1 child, 2-3 children, or 4 or more children.

5.5.1 Family Size Effects (Using Original Definitions)

Under the original definitions, there were no significant relationships between incidence and the number of children in the family for maltreatment overall, for any of the major subcategories of abuse and neglect, or for any level of injury/impairment.

5.5.2 Family Size Effects (Using Revised Definitions)

In contrast to the absence of family size effects with the original definitions, several relationships between family size and child maltreatment did emerge when estimates were based on cases countable under the revised definitions.

The incidence of maltreatment overall was significantly associated with the number of children in the family, as shown in Table 5-7. Children in families with four or more children were more likely to be maltreated (35.6 per 1,000) than those in families with fewer children, while there was no difference between the maltreatment rates for only children (21.0 per 1,000) and those for children with fewer than three siblings (20.1 per 1,000).

When abuse was distinguished from neglect this overall pattern of family size differences showed up in trends on both measures. That is, as can be seen in Table 5-7, there was a marginal difference in the rate of abuse (children from the larger households were abused at a rate of 14.4 per 1,000, compared to 10.0 and 8.6 per 1,000 for the single-child and medium-sized households, respectively). A similar, but more pronounced, pattern emerged in connection with neglect, where the rate for the larger families was nearly double the rate for families with three or fewer children (23.0 vs. 12.5 or 12.6 per 1,000).

Table 5-7. Family size differences in maltreatment: revised definitions

	Category	1 Child	2-3 Children	4+ Children
RATES[a]	All Maltreatment	21.0	20.1	35.6
	All Abuse[c]	10.0	8.6	14.4
	Physical Abuse	5.7	4.5	7.8
	All Neglect[c]	12.5	12.6	23.0
	Physical Neglect[c]	7.0	7.6	13.9
	Severity Endangered	2.5	3.4	10.5
TOTALS[b]	All Maltreatment	295,700	795,300	329,600
	All Abuse[c]	140,600	340,400	133,600
	Physical Abuse	80,300	177,600	72,200
	All Neglect[c]	176,200	500,700	212,900
	Physical Neglect[c]	98,400	302,800	128,700
	Severity Endangered	34,600	134,100	97,600

[a] Per 1,000 children from that size family in the population.

[b] Total number of children not adjusted by population totals.

[c] Marginal (i.e., nonsignificant) differences across family size groups, but $p < .10$.

NOTE: Family size was unknown for 10.4% of the cases. See footnote 2.

Note that despite these family size differences in overall rates of abuse and neglect, families of all sizes evidenced the overall pattern of neglect > abuse under the revised definitions.

Family Size Differences in Abuse. Within the subcategories of abuse, only the incidence of physical abuse was associated with family size, but the association was a statistically reliable (i.e., significant) one. In families with four or more children, the physical abuse rate was 7.8 per 1,000 children, compared with rates of 4.5 and 5.7 per 1,000 in the smaller families, which did not statistically differ from each other.

Despite the family-size difference in rates of physical abuse, families of all sizes showed the overall pattern of physical > emotional > sexual abuse.

Family Size Differences in Neglect. Analyses on the subcategories of neglect revealed only a marginal difference in the rates for physical neglect. As Table 5-7 shows, the larger families exhibited nearly double the rates of physical neglect found in smaller families, when countability of cases was assessed in relation to the revised definitions. That is, 13.9 children per 1,000 were physically neglected when children numbered four or more in the family, but only 7.6 or fewer per 1,000 experienced physical neglect when the family had fewer children. Single-child families and those with 2-3 children did not differ in incidence rates.

Family Size Differences in Severity of Injury/Impairment. The last entry in Table 5-7 provides the incidence rates for children endangered by maltreatment countable under the revised definitional standards. There it can be seen that children in the larger families were considered to have been endangered by some form of countable maltreatment between three and four times as often as children in the smaller families. Specifically, there were 10.5 endangered children per 1,000 in families with four or more children, but only 2.5 and 3.4 endangered children per 1,000 in single-child and 2-3 child families, respectively.

5.5.3 1980-1986 Differences Related to Family Size

There were no significant relationships between the strength and/or nature of the 1980-1986 differences in the incidence of maltreatment and the number of children in a family.

This means that the changes described in Chapter 3 held equally well for all children, regardless of the size of their families.

5.5.4 Summary of Family Size as a Risk Factor

Although family size made no difference for the incidence estimates under the original definitions, it did affect estimates of cases countable under the revised definitions.

Children in families with four or more children showed higher rates of maltreatment on a variety of measures. They were also more likely to be regarded as endangered--a fact which may be at the basis of all the other differences they exhibited. Recall that the revised definitions expanded the original harm criteria by allowing cases to be countable if the respondent had judged the child to be endangered.[8] This means that, for children in the larger families, their greater rates of perceived endangerment should result in generally higher rates of countable cases. This largely appears to be what occurred: these children had higher rates of countable maltreatment overall, and marginally higher rates of both abuse and neglect. It is interesting, however, to note that within the subcategories of abuse and neglect, their higher rates of countable cases were localized in the areas of physical abuse and physical neglect. While it appears reasonable to assume that the limited material resources of the larger families increase the risk of physical neglect for children in these environments, it should be noted (1) that physical neglect also included inadequate supervision, and (2) that the occurrence of physical abuse should be independent of resources. These considerations indicate that there are qualitative differences in the experiences of children in the larger families which increase their perceived risk or endangerment from physical maltreatment in its various forms.

5.6 Metropolitan Status (Metrostatus) of County

As detailed in Chapter 2, in order for maltreatment to be countable under either set of definitions, it was necessary for the maltreated child to have lived in one of the study counties at some time during the study period.[9] Countable cases were classified into three major categories on the basis of the metropolitan status (metrostatus) of the county of residence. Counties which were in one of the 32 largest metropolitan areas in the country were considered to be "Major urban" counties; "Urban" counties were those in other metropolitan areas;[10] "Rural" counties were those not included in any metropolitan area.

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[8] Or if the case was officially "founded" or "substantiated" by CPS--See Section 2.2.

5.6.1 Effects of County Metrostatus

There were no significant overall effects of county metrostatus on any category of maltreatment or of injury/impairment under either set of definitional standards. Thus, there was more than a one-in-twenty likelihood that any metrostatus differences in the incidence of countable maltreatment simply reflected chance or random factors.

Because the NIS-2 provided a better representation of the major urban counties, this finding is important in interpreting the meaning of overall 1980-1986 differences. That is, had the incidence of maltreatment been greater in the major urban counties, then one could explain the overall 1980-1986 differences as a simple effect of the greater number of major urban counties in the 1986 study. In view of the fact that there was no relation between incidence and county metrostatus, this explanation of the 1980-1986 differences appears less credible. Further discussion of this point is given below and in the final chapter.

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[9] It was not necessary for the maltreatment itself to have occurred in the study PSU. Also, temporary residence in a study county (e.g., vacationing or visiting there) qualified under this requirement.

[10] Counties in metropolitan areas were those included in a "Standard Metropolitan Statistical Unit," or SMSA, by the Bureau of the Census. SMSA counties include not only those within a city's governmental limits, but also those outlying (i.e., suburban) counties which have close economic and social relationships with the city in question, including an established minimum standard level of commuting to the city. Thus, the category "Major urban" includes all counties, urban and suburban, within the largest metropolitan areas in the nation, and the "Urban" category includes all counties, urban and suburban, within other metropolitan areas. The specific classifications of both the NIS-1 and NIS-2 counties can be found in Table 6-10 of the Report on Data Processing and Analysis.

5.6.2 1980-1986 Differences Related to County Metrostatus

The reader will recall that significant 1980-1986 differences in the incidence of maltreatment overall were found to reflect differences in the incidence of abuse, and that within the subcategories of abuse, both physical and sexual abuse had evidenced significant increases in the 1986 study. Moderate injuries were found to be significantly above their 1980 levels.

County metrostatus was significantly related to the magnitude of each of these 1980-1986 differences.[11] Although 1986 incidence rates were higher across all metrostatus categories, they were significantly higher only in the major urban and urban counties. The pattern is illustrated in Figure 5-11 for the incidence of all abuse, but it applies as well to the incidence of maltreatment overall, of physical abuse, of sexual abuse, and of moderate injuries/impairments.[12] Thus, the the 1980-1986 increases occurred disproportionally in urban locales.

It should be noted that these findings cannot account for the overall 1980-1986 differences in the incidence of maltreatment. That line of reasoning would only be credible if the unrepresentative selection of urban counties in the NIS-1 had for some reason systematically led to underestimates of the incidence of maltreatment in these counties. However, as indicated above, there were no overall differences in incidence on the basis of metrostatus, which would be expected if there had been any systematic distortions of this type.

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[11] County metrostatus also related to the pattern of 1980-1986 incidence rate differences in emotional neglect, serious injuries, and probable injuries. That is, for each of these measures, 1986 rates were (nonsignificantly) higher in major urban counties, whereas 1980 rates were (nonsignificantly) higher in rural counties. However, because there were no significant differences in the 1980-1986 incidence rates, either overall or within a given metrostatus category, these statistical findings are not detailed in the text here. Interested readers can refer to Appendices B, C, and E for the relevant information concerning these patterns.

[12] The only exception to this pattern was that the 1980-1986 difference in maltreatment overall was not significant in the urban counties.

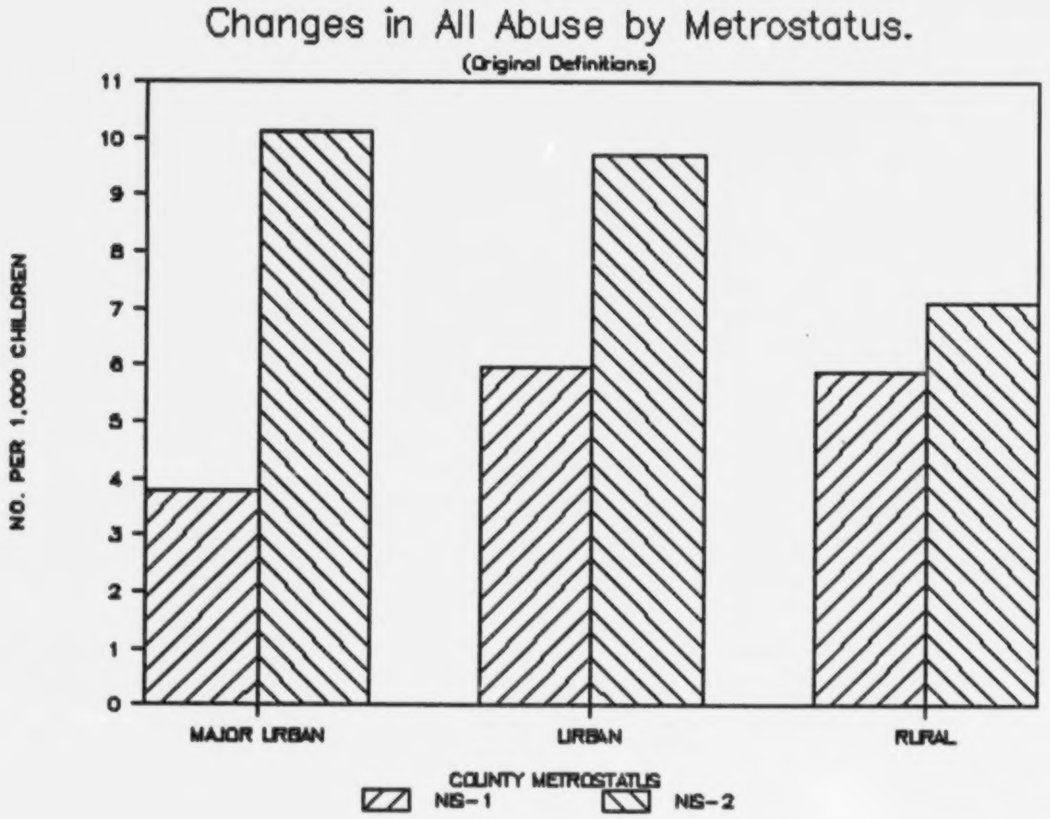
Changes in All Abuse by Metrostatus.
(Original Definitions)
NO. PER 1,000 CHILDREN
0
1
2
3
4
5
6
7
8
9
10
11
MAJOR URBAN
URBAN
RURAL
COUNTY METROSTATUS
NIS-1
NIS-2

FIGURE 5-11

The findings here, however, possibly do reflect the NIS-1 vs. NIS-2 differences in county samples.[13] This implies that readers should be cautious about over-emphasizing the importance of these findings concerning the disproportionate occurrence of the 1980-1986 differences in the more urban counties.

5.6.3 Summary of Effects of County Metrostatus

The metrostatus of the county had no reliable impact on the incidence of maltreatment according to any measure of type or severity. This finding indicated that the improvement in representation of the more urban counties in the NIS-2 could not account for the higher estimates of the incidence of maltreatment in that study. County metrostatus was related to the size of the 1980-1986 increases in incidence, but the reliability of this finding was unclear in view of the differences in the representation of urban counties in the two studies.

5.7 Summary

Only significant results are summarized in this section. Overviews are given separately here for results based on the original definitions, findings derived from the revised definitions, and patterns of differences between the 1980 and 1986 data sets.

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[13] According to this account, the less representative NIS-1 selection of urban counties was the reason, not for the overall 1980-1986 differences, but for the fact that these differences appeared to be disproportionally distributed in the more urban counties. That is, since only four counties comprised the major urban category in the NIS-1, the sampling error estimated for this category may have been unreliable--and substantially lower than its appropriate value. If true, it would have artificially inflated the significance of the NIS-1 vs. NIS-2 differences in this category. This would mean that the 1980-1986 increases only appeared to occur disproportionately in the urban counties as a result of the underestimation of the NIS-1 sampling errors for these counties.

5.7.1 Original Definitions

The following were important relationships between child and family characteristics and the incidence of maltreatment defined as countable under the original definitions:

CHILD'S SEX:

- Females were more likely to be abused: rates were 11.1 per 1,000 females and 7.4 per 1,000 males;
- Only females evidenced the overall pattern of abuse > neglect; rates of abuse and neglect among males were essentially equivalent;
- Females were sexually abused at a rate nearly four times the rate for males: 3.5 females vs. 0.9 males per 1,000; and
- Females experienced more probable injuries, ostensibly because of their higher rates of sexual abuse: 2.6 females and 1.5 males per 1,000 had probable injury/impairment.

CHILD'S AGE:

- Maltreatment overall increased reliably up through age 8; age-related increases occurred for both abuse and neglect;
- All but two age groups retained the overall pattern of abuse > neglect under original definitions; 0-2 year olds and 15-17 year olds experienced somewhat more neglect than abuse;
- Age-related increases in incidence occurred for all subcategories of abuse; for the most part, these patterns were due to the lower rates of abuse for 0-2 year olds;
- The only subcategory of neglect to show age-related differences was educational neglect, reflecting the fact that only children of school-age (i.e., 5 years and older) were countable as educationally neglected;
- Fatalities as a result of maltreatment were primarily limited to the lower age brackets (ages 5 and under);
- The risk of moderate injury/impairment increased with age, reflecting different rates of injury for children aged 5 and under compared with those 6 years and older; and

- There were age differences in the relative distribution of different levels of injury: moderate injuries were most frequent for all but the 0-2 year olds, who suffered serious injuries more frequently than they did moderate injuries.

CHILD'S RACE/ETHNICITY:

- This characteristic was not related to the type or severity of maltreatment;

FAMILY INCOME:

- This factor had pervasive effects on the incidence of maltreatment; it was related to all measures of maltreatment and all levels of outcome severity;
- Children from families with incomes less than $15,000 had an overall rate of maltreatment 5 times that of other children; 32.3 vs. 6.1 children per 1,000 in the under $15,000 and over $15,000 income categories, respectively;
- Abuse was 4 times higher among lower income children; 16.6 lower income children per 1,000 compared to 4.1 upper income children per 1,000;
- Physical abuse was 3½ times more frequent in the lower income category; sexual abuse was 5 times more frequent; and emotional abuse nearly 4½ times more frequent;
- Neglect was nearly 8 times higher among the lower income children;
- Compared to children in families with incomes of $15,000 or more, those in the under $15,000 category were nearly 10 times as likely to be physically neglected, almost 8 times as likely to be educationally neglected, and 5 times more likely to be emotionally neglected.
- Lower income children experienced more frequent injuries at all levels: 0.03 vs. 0.01 fatalities per 1,000, 6.0 vs. 0.8 seriously injured children per 1,000, 22.4 vs. 4.7 moderately injured children per 1,000, and 4.0 vs. 0.6 probably injured children in families with incomes less than $15,000 compared to those with higher incomes.

FAMILY SIZE:

- There was no relation between the number of children in a family and the type or severity of maltreatment.

TYPE OF COUNTY:

- The metrostatus of the county did not relate to the type or severity of maltreatment.

5.7.2 Revised Definitions

The following paralleled the findings for the original definitions:

CHILD'S SEX:

- Females experienced more abuse overall than did males; 13.1 females vs. 8.4 males per 1,000 were countable as abused under the revised definitions;
- Females evidenced the overall pattern of neglect > abuse under the revised definitions;
- The rate of female sexual abuse was nearly four times that for males: 3.9 per 1,000 females but 1.1 per 1,000 males were sexually abused; and
- Probable injury/impairment occurred more frequently among females (3.5 females per 1,000 vs. 2.0 males per 1,000)--a result which likely stemmed from the higher incidence of sexual abuse for females.

CHILD'S AGE:

- Abuse increased with age, largely due to the fact that 0-2 year olds were significantly less likely to be abused than were older children;
- Physical abuse was associated with age, with 0-2 year olds less frequently physically abused than all other age groups, and 3-5 year olds less abused than children 12 years old and over;
- Educational neglect was related to the child's age, due in part to the definition of this form of maltreatment which restricted it to children of school age, but also partially due to an increase in this category of maltreatment in the 15-17 year old age bracket;
- The age-pattern for fatal injuries was virtually identical to that found under the original definitions, reflecting the fact that fatal injury cases which were countable under the revised standards were nearly all also countable under the original standards; and
- Moderate injuries from maltreatment defined by the revised standards showed exactly the same pattern as with the original definitions: children aged 5 and younger were significantly less likely to be moderately injured than those in older age categories.

CHILD'S RACE/ETHNICITY:

- No differences in type or severity of maltreatment were significantly related to race/ethnicity;

FAMILY INCOME:

- Children from families with incomes under $15,000 per year experienced more maltreatment (54.0 vs. 7.9 per 1,000 children);
- Abuse overall was 4½ times greater for children from lower income families (19.9 vs. 4.4 children per 1,000);
- Lower income children experienced more physical abuse (10.2 vs. 2.5 children per 1,000), more sexual abuse (4.8 vs. 1.1 children per 1,000), and more emotional abuse (6.1 vs. 1.2 per 1,000 children);
- Maltreatment involving some form of neglect was about 9 times as frequent for children from lower income families (36.8 vs. 4.1 children per 1,000);
- There were income-related differences in each subcategory of neglect, with lower income children consistently more frequently maltreated (physical neglect: 22.6 vs. 1.9 children per 1,000, educational neglect: 10.1 vs. 1.3 children per 1,000, and emotional neglect: 6.9 vs. 1.5 children per 1,000); and
- Children from the lower income families experienced more fatalities (0.03 vs. 0.01 per 1,000 children), more serious injuries (6.0 vs. 0.9 per 1,000 children), more moderate injuries (30.9 vs. 5.5 children per 1,000), and more probable injuries (5.4 vs. 0.9 children per 1,000) than children from the higher income families.

TYPE OF COUNTY:

- The metrostatus of the county did not relate to the type or severity of maltreatment under the revised definitions.

Findings under the revised definitions differed from those under the original definitions in the following respects:

CHILD'S SEX:

- Males also evidenced the overall pattern of neglect > abuse under the revised definitions.

CHILD'S AGE:

- There was no relation between age and the incidence of maltreatment overall or of neglect, defined according to the revised standards;
- Sexual and emotional abuse did not evidence age-related increases under the revised standards; and
- Emotional neglect did exhibit a significant relationship to age, with children from birth through five years less emotionally neglected than those age 9 and older.

FAMILY INCOME:

- Income differences emerged on the level of injury/impairment unique to the revised definitions: the endangered category; 11.7 per 1,000 children in lower income families vs. 0.6 children per 1,000 in other families were endangered by maltreatment countable under the revised standards.

FAMILY SIZE:

- Children in families with four or more children experienced a higher overall incidence of maltreatment than other children (35.6 vs. 21.0 or fewer children per 1,000);
- Physical abuse was more likely for children in the larger households; 7.8 physically abused children per 1,000 in households with 4 or more children, but 5.7 or fewer per 1,000 in smaller families;
- Physical neglect was more frequent in the larger households; 13.9 vs. 7.6 or fewer children in larger vs. smaller households, respectively; and
- Children from larger families were more often endangered by maltreatment countable under revised standards (10.5 vs. 3.4 or fewer endangered children in large vs. smaller families, respectively).

5.7.3 Differences from the 1980 Findings

The overall NIS-1 vs. NIS-2 differences, described in Chapter 3, were not affected by:

- child's sex;
- child's race/ethnicity;

- family income; or
- family size.

The overall 1980-1986 differences were, however, modified by two factors: the child's age, and the type of county.

CHILD'S AGE:

- Child's age was related to the magnitude of the increases for all abuse, for physical abuse, and for sexual abuse; in all cases, the increased incidence of maltreatment occurred disproportionately among the older children.

TYPE OF COUNTY:

- The 1980-1986 differences were greater in the urban counties for maltreatment overall, abuse overall, physical abuse, sexual abuse, and moderate injuries.

The fact that the relationship between age and specific categories of maltreatment increased since 1980 raised some question about whether age is a risk factor for the occurrence of these forms of maltreatment, or whether it relates more to the likelihood that these forms of maltreatment will be recognized. This issue is considered in the final chapter, when the implications of findings are discussed.

Also note that the reliability of the relation between county type and the magnitude of 1980-1986 increase was made doubtful by the possibility that it stemmed from the different in representation of the more populous counties in the two studies.

6. SUBSTANTIATION AND REPORTING RATES

Previous chapters have focused on cases countable under the original or revised definitions. These included cases that had been officially reported to the local CPS agency as well as cases which had not been reported, but which were recognized and submitted to the study by some community professional in an investigatory or noninvestigatory agency. The findings presented in this chapter distinguish between cases known to CPS and those known only through a non-CPS study source.

To begin with, all cases reported to CPS are considered, whether or not these turned out to be countable under either of the study's definitional standards. The overall number of cases reported to CPS is examined, as is the increase in CPS reports since 1980. Then, the proportions of reported cases that were countable under the different study definitions are presented, as are the relationships between countability and CPS substantiation, and changes since 1980 in the countable proportions of CPS cases.

Following this, recognition and reporting patterns are examined. Considering the full set of cases which turned out to be countable by the study (whether or not these were known to CPS), the proportions of this total recognized by professionals at different types of agencies are presented. Then, the rates of reporting countable cases to CPS are examined. Both the overall reporting rate, and the rates at which recognized cases are reported by different agency sources are considered.

6.1 Reports of Suspected Abuse and Neglect

Since the study obtained data from a nationally-representative sample of local CPS agencies, it is possible to generate national estimates concerning the CPS database. In this section, the following five questions about cases reported to CPS are addressed:

- How many cases are reported to CPS nationwide (without regard to whether these are countable or not)?
- Has the number of reports to CPS changed since 1980?

- Of the cases reported to CPS, what proportion are countable under the original definitions? What proportion are countable under the revised definitions?
- Has the proportion of CPS cases countable under original definitions changed since 1980?
- What proportion of all CPS cases are substantiated? How does the substantiation/nonsubstantiation of CPS cases relate to countability under either set of definitional standards?

6.1.1 Patterns in CPS Reports Overall

As given in Table 6-1, CPS received reports concerning an estimated 1,657,600 children in 1986,[1] reflecting reports on more than 26 children per 1,000 in the U.S. population. This represented a statistically significant increase of nearly 57% in officially reported children since 1980. These results are generally consistent with findings from other studies, such as the results of the data collection project of the American Humane Association and of the survey this year by the House Select Committee on Children, Youth, and Families, both of which were based on surveys of states concerning aggregated report totals.[2]

Table 6-1 also indicates that among the children reported to CPS, 203,700 met the original definitional standards in 1980 whereas 409,400 met these standards in 1986. These totals translate into incidence rates of 3.2 children per 1,000 and 6.5 per 1,000 in 1980 and 1986, respectively. Note that this consitituted a significant increase in overall incidence of countable CPS cases. The increase in sheer numbers of CPS cases which were countable to the study (i.e., where demonstrable harm had occurred) is consistent with the overall increase in

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[1] This is an estimate of the number of different children for whom reports were received and accepted for investigation. It does not involve double-counting of children who were reported more than once, nor does it include children involved in reports which were screened out or referred elsewhere by CPS prior to an attempt at investigation.

[2] AHA reported that 1,928,000 children had been reported to CPS in 1985, according to their survey of states concerning report totals. This was equivalent to an estimated 30.6 children per 1,000 population. (cf. Highlights of Official Child Neglect and Abuse Reporting, 1986). The House Select Committee Survey, given in Abused Children in America: Victims of Official Neglect, found that about 1.9 million children were reported in 1985 and that between 1981 and 1985 the number of children reported to have been abused or neglected increased approximately 55%. The 1986 estimate of 1,657,600 is associated with a 95% confidence interval ranging from 1,282,461 to 2,032,798, and so does not differ significantly from these other estimates which are within this range.

Table 6-1. Reports received by CPS

	Children	1980	1986	1980-1986 Increase
RATES[a]	Total Reported	16.6	26.3	9.7*
	Countable/Original Definitions	3.2	6.5	3.3*
	Countable/Revised Definitions	-	11.6	-
TOTALS[b]	Total Reported	1,055,900	1,657,600	601,700*
	Countable /Original Definitions	203,700	409,400	205,700*
	Countable /Revised Definitions	-	732,300	-

*Difference between 1980 and 1986 figures is significant at the $p < .05$ level.

[a] Per 1,000 children in the population.

[b] Total numbers of children rounded to the nearest 100; not adjusted for population totals.

countable cases described in Chapter 3. As discussed in that chapter, this increase in absolute numbers may be due to an increase in the actual occurrence of child maltreatment, but the evidence seems more consistent with the idea that it is due to an increased recognition of the cases that exist.

Further analyses also showed that the set of cases known to CPS in 1986 included a greater concentration of countable cases. That is, the percentage of cases known to CPS which turned out to be countable under the original study definitions was significantly greater in 1986 than in 1980. In 1980, 19% (i.e., 203,700/1,055,900) of the cases reported to CPS were countable, whereas this proportion increased to 25% (i.e., 409,400/1,657,600) in 1986. Thus, there clearly has been an increase in the proportion of CPS cases which are countable by the original study standards, changing the general character of the pool of cases which get into the door at CPS agencies. This result may indicate that there has been an increase in the ability of reporters to CPS to selectively report the more countable cases to CPS. Alternatively, it may reflect greater screening on the part of CPS agencies themselves. That is, CPS agencies may have become more selective about the reports they accept for investigation (what CPS lets into their agency in the first place, as opposed to those they refer elsewhere at the outset) and the proportion of countable cases in the set of reports accepted for investigation may have increased as a consequence of such screening.

When the revised NIS-2 definitional standards were applied, 732,300 children were classified as countable, or about 44% of the 1,657,600 children reported to CPS. As noted earlier (Chapters 2 and 4) all cases officially founded by CPS were defined as meeting the harm criterion for countability under the revised definitions, as were cases where study participants regarded the children as having been endangered by the maltreatment (or where the children were actually injured/impaired).

6.1.2 Substantiated/Indicated vs. Unfounded CPS Cases

Table 6-2 presents the distribution of reported children according to whether or not CPS had officially substantiated the allegations concerning their maltreatment or considered them "indicated" on the basis of the evidence at hand. "Substantiated" (also termed "founded") cases were those for which CPS had concluded the investigation and had determined that the

Table 6-2. Cases reported to CPS: substantiation rates and proportions countable under different definitions

Children Reported[a]	1980	1986	1980-1986 Increase
All Reported Cases:			
Subst./Indicated[b]	451,200	871,300	+ 420,100[*]
Unfounded	604,700	786,300	+ 181,600[*]
Total	1,055,900	1,657,600	+ 601,700[*]
Proportion Subst./Indicated	0.43	0.53	+ 0.10[*]
Countable Under Original Definitions:			
Subst./Indic. Countable	185,300	336,600	+ 151,300[*]
Proportion Subst./Indicated Countable	0.41	0.39	- 0.02
Unfounded	18,400	72,800	+ 54,400[*]
Proportion Unfounded Countable	0.03	0.09	+ 0.06[*]
Countable Under Revised Definitions:			
Subst./Indicated Countable	-	637,200	-
Proportion Subst./Indic. Countable	-	0.73	-
Unfounded	-	95,100	-
Proportion Unfounded Countable	-	0.12	-

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[*] Difference between 1980 and 1986 figures is significant at the $p < .05$ level. All 1980-1986 significance tests adjust for population totals.

[a] Total numbers of children rounded to the nearest 100; not adjusted for population totals.

[b] Substantiated or indicated. See text for specific definition.

allegation was supported by the evidence. "Indicated" cases were those for which the final CPS assessment had not yet been made at the time the study data form was required, but where the investigating CPS caseworker regarded the available evidence as sufficient to warrant continued investigation.[3] Cases which were not "founded" or "indicated," were classed as "unsubstantiated" (also termed "unfounded"), which meant that the allegation proved false or unsupportable.

Table 6-2 reveals that, in 1986, the alleged maltreatment was founded or indicated for an estimated 871,300 children, or 53% of those who had been offically reported to CPS. Maltreatment was unfounded for the remaining 786,300, or 47% of those reported. Comparison with the 1980 data revealed that the number of substantiated/indicated cases had increased by over 90% and that this increase was statistically significant. The number of unfounded cases was also above its 1980 level (by 30%), and this increase was statistically marginal.[4] Finally, the fourth line of Table 6-2 shows that the proportion of CPS cases which were substantiated/indicated increased from 0.43 to 0.53 between 1980 and 1986, and that this increase was significant.

Thus, the CPS substantiation rate (which here includes "indicated" cases) significantly increased during the six year interval between the NIS studies, which means that a higher proportion of the cases reported to and investigated by CPS are now regarded by that agency as warranting official intervention of some sort. As was the case above in interpreting the finding that the concentration of countable CPS cases had increased, it is not possible to identify the precise reason for the finding here. That is, since the study obtained CPS data forms only on those reported cases which were accepted for investigation, it is not possible to determine whether this increase in substantiation/indication rate was due to an increased awareness on the part of reporters to provide CPS with cases which are likely to receive intervention and services or whether it instead indicates that, in the face of increasing reports and decreasing resources, CPS agencies have become more selective about the cases they accept for investigation and have screened out more of the cases that would not have been substantiated or indicated.

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[3] Officially substantiated and "indicated" cases were classified together in these analyses to minimize the effects of time constraints on data collection and to conform with the approach taken in the NIS-1.

[4] I.e., $p < .10$.

The second section in Table 6-2 breaks down the CPS cases countable under the original definitions into those which were substantiated/indicated vs. those which were unfounded, showing both the total numbers and the proportions for each of these sectors. In the current study, 336,600 of the cases substantiated/indicated by CPS were countable under the original standards. This was a statistically significant increase of 82% above the 1980 estimate of countable substantiated/indicated cases. While the absolute size of this numerical increase is both sizeable and significant, the following row in the table indicates that countable cases represent essentially the same proportion of the set of substantiated/indicated cases in both studies (0.41 in 1980 and 0.39 in 1986, a difference which was not significant).

The number of unfounded cases which were countable under the original definitions also increased significantly --from 18,400 in 1980 to 72,800 in 1986 (a nearly 300% increase). Note that this also involved a small but significant increase in the countable proportion of unfounded cases. That is, cases which were countable under the original definitions increased from 0.03 to 0.06 of all unfounded CPS cases. The fact that there is now a greater proportion of countable cases in the set of those which CPS determines to be unfounded suggests that there has been a small but detectable shift in CPS substantiation standards, such that agencies now exclude cases which in the past would have received intervention and services. Although this doubtless reflects a reasonable adaptation to an environment in which these agencies have experienced increasing demands and diminishing resources, it must nevertheless raise concern about the consistency and adequacy of intervention in cases where children have already experienced demonstrable harm as a result of abuse or neglect.

The last section in Table 6-2 gives the numbers and proportions of substantiated/indicated and unfounded CPS cases which were countable under the revised standards. As the table reveals, 637,200 children whose maltreatment was substantiated or indicated by CPS were countable according to these standards, a number which reflects 73% of all substantiated/indicated cases. Readers will recall that a primary goal of these revised definitions was to avoid excluding cases which were offically substantiated by CPS, and that any case which was offically substantiated was considered to automatically fulfill the harm criterion under the revised definitions, and was countable as long as it also met all the other definitional criteria (e.g., age, residence, time of maltreatment, etc.). The fact that the proportion of substantiated/indicated cases countable under revised standards is so much higher than the proportion countable under original standards (i.e., 0.73 vs. 0.39) conveys the strong impact of this strategy.

6.2 Patterns in Recognition and Reporting

This section addresses the following six sets of questions:

- Of all recognized cases which are countable under original definitions, what number (and proportion) are officially reported to CPS? What number (and proportion) of cases countable under the revised definitions are officially reported?
- Has the proportion of cases known to CPS changed since 1980?
- Which types of agencies recognize greater numbers (proportions) of the cases countable under original definitions, and which tend to recognize fewer? How do the recognition rates of the different agency types compare when cases are defined as countable under the revised definitions.
- Has the recognition patterns for the different agency categories changed since 1980?
- For recognized cases countable under the original definitions, how do reporting rates vary across the different non-CPS agency categories? Are some types of agencies notably better (or worse) at reporting the cases they recognize than others? How do the reporting rates compare when the set of recognized cases is defined according to the revised definitional standards?
- Have reporting rates for cases countable under original definitions changed since 1980?

6.2.1 Overall Reporting Rate of Countable Cases

Table 6-3 classifies the children who experienced maltreatment countable under each set of definitions according to whether or not they were known to CPS.[5] In 1986, CPS

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[5] For this classification, a maltreated child was considered to be known to CPS only if there was some indication that CPS had reason to suspect that the child in question was maltreated. Children who were only listed by CPS as having lived in a household, but not as having been either an alleged or indicated victim of maltreatment were not known to CPS as maltreated and were not defined as "known to CPS" for this classification. Children who were classified as "known to CPS" may or may not have been known to another participating study agency.

Table 6-3. Countable cases of child maltreatment classified by CPS and non-CPS Source

		Original Definitions			
	Category	1980	1986	1980-1986 Increase	1986 Revised Definitions
RATES[a]	Known to CPS	3.2	6.5	3.3*	11.6
	Known Only to Non-CPS	6.6	9.8	3.2	13.5
	Total	9.8	16.3	6.5*	25.2
TOTALS[b]	Known to CPS	203,700	409,400	205,700*	732,300
	Known Only to Non-CPS	421,400	616,500	195,100	852,400
	Total	625,100	1,025,900	400,800*	1,584,700

*The differences in rate of incidence between 1986 and 1980 were significant at the $p < .05$ level.

[a] Per 1,000 children in the population.

[b] Total number of children rounded to the nearest 100; not adjusted by population totals.

knew about 409,400 children nationwide (i.e., an incidence rate of 6.5 children per 1,000) who had experienced maltreatment countable under the original definitions. However, this constituted only a minority of the total cases countable by these standards. There were an additional 616,500 children (9.8 per 1,000) who had experienced such maltreatment and who had not been reported to CPS, but who were known only to a professional in a non-CPS agency like those included in this study. Thus, CPS knew about an estimated 40% of the cases countable under original definitions. The picture appears not much better when cases countable under the revised definitions are considered. There, 732,300 (i.e., 11.6 children per 1,000) were known to CPS, representing 46% of the 1,585,700 total cases countable (i.e., of the 25.2 children per 1,000 who had been countable under the revised standards).

As given in Table 6-3, the increase in cases countable under original definitions occurred primarily in the sector of cases known to CPS (i.e., it was only in that sector that the difference between 1980 and 1986 figures was statistically significant). Thus, while more cases overall were known to the study in 1986, the incidence rate of cases known only to non-CPS sources did not significantly change since 1980, although the table shows that they did increase by about 48%. The fact that this difference failed to achieve traditional levels of statistical significance may have stemmed from the especially large sampling error associated with the non-CPS estimates in the NIS-2.

At first glance, because the increase in countable cases in 1986 was not proportionally distributed across the known-to-CPS and unreported-non-CPS sectors, one might think that there had been an overall increase in the rate at which cases are reported to CPS. However, when this possibility was specifically examined, the analyses showed that, although the overall reporting rate did increase slightly, the increase was not significant (or statistically reliable). In 1980, only about one-third of the total countable cases, or 33% (i.e., 203,700/625,900) were known to CPS. Although, as noted above, the percentage increased to 40% in 1986, this increase was not statistically significant. Thus, this study did not find a reliable increase in the rate of reporting countable cases to CPS in the interim since 1980.[6]

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[6] Meaning that the increase in the rate of reporting countable cases to CPS in the interim since 1980 may (with probability greater then one in twenty) have occurred due to chance alone.

It is important to use caution in drawing conclusions about the meaning of this result. That is, one should not conclude that this finding necessarily means that reporting rates have stayed the same. First, the reporting rates did increase (from 33% to 40%), but the increase turned out to be nonsignificant. Second, and perhaps more importantly, any increased screening-out of cases by CPS would tend to obscure increases in reporting rates, since screened-out cases would not be considered "Known to CPS," even though they were at least technically, "reported to CPS." This caution should also be borne in mind throughout the next section. It is discussed again in the concluding chapter.

6.2.2 Recognition and Reporting of Countable Cases by Different Agencies

Original Definitions:

Table 6-4 presents national estimates, by source, of the number of children countable as maltreated under the original definitions who had been reported to CPS, the number of additional in-scope children (who had not been reported to CPS), and the proportion of the total in-scope children who had been reported. In constructing this table, children were "credited" to an specific type of agency on the basis of a priority system which reflects the "level of recognition" model presented at the outset of Chapter 2.[7] Table 6-4 lists the non-CPS agency categories in their priority order, from highest to lowest. Thus, the estimate of a total of 50,900 in-scope children recognized by hospitals is the estimated number of additional children identifiable from this source, over and above all those who had been recognized by juvenile probation departments or courts, police agencies, sheriff's departments, or public health services. Children listed in the table as having been "reported to CPS" by a given

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[7] The priority system followed here corresponded to that used in the NIS-1, except that the additional category of daycare centers was inserted just following public schools. It should be noted that there is some arbitrariness in this priority system, since the model described in Chapter 2 does not dictate the order of agencies within the investigatory sector or of the different noninvestigatory agencies in relation to each other.

Table 6-4. Rate of reporting to CPS by source: cases countable under original definitions

Source of Information to CPS and/or Study[b]	Estimated No. In-Scope Children[a]			Proportion Reported to CPS (A/C)
	Reported to CPS[c] (A)	Not Reported to CPS[d] (B)	Total Recognized by Source (C)	
Investigatory Agencies:				
Probation/Courts	10,200	35,500	45,700	0.22
Police/sheriff	59,300	37,400	96,700	0.61
Public Health	6,800	22,500	29,300	0.23
Subtotal:	76,300	95,400	171,700	0.44
Other Study Agencies:				
Hospitals	33,500	17,400	50,900	0.66
Schools	129,900	409,700	539,600	0.24
Daycare Centers	4,000	20,400	24,400	0.16
Mental Health	11,000	8,700	19,700	0.56
Social Services	22,500	64,900	87,400	0.26
Subtotal:	200,900	521,100	722,000	0.28
Total, All Study Agency Sources:	277,200	616,500	893,700	0.31
Other Sources:				
DSS/Welfare Department	16,700	?	16,700	?
Other professional agency	9,600	?	9,600	?
All other sources	105,900	?	105,900	?
Subtotal:	132,200	?	132,200	?
Total, All Sources:	409,400	616,500	1,025,900	0.40

[a] Total number of children rounded to the nearest 100; not adjusted by population totals.

[b] Priority classification. See Section 6.2.2. Each row represents children over and above those in previous rows. Children reported to CPS by some study source are classified only in the "reported to CPS" row for that source.

[c] Includes children identified to the study both by participating non-CPS agencies and by CPS as well as children identified to the study only by CPS where source of report to CPS was a non-CPS agency of the type included in the study design (e.g., police, hospital, school, etc.).

[d] Because of the priority classification, "not reported to CPS" means not reported by the agency type in the row in question or by any other source to the study.

category of agency include those who were reported to CPS by all such agencies, those which participated in the study as well as those which did not.[8]

The first column of Table 6-4 provides a break-down of the "known to CPS" 1986 estimate given earlier in Table 6-3. This column shows that, in 1986, agencies of the types included in the non-CPS sector of this study were estimated to have reported to CPS a total of 277,200 children who had been countable under the original definitions. The remaining 132,200 reports to CPS concerning in-scope children came from sources beyond the types of agencies included in this study (e.g., from other branches of the Department of Social Services, or DSS, from other professional agency sources, such as private medical clinics, or physicians in private practice, or from other sources, such as members of the family, the child him/herself, neighbors, anonymous callers, etc.

The second column in Table 6-4 differentiates the "Known only to Non-CPS" 1986 entry in Table 6-3 into the different agency categories. Note that information is available here only for those non-CPS agency categories which were included in the study design. There is no basis in this study for estimating unreported cases which were known to the other sources in the last rows of the table (i.e., to other branches of DSS, to private medical clinics and physicians, to relatives, and so forth). For the types of sources included in the study, the overall estimate is that, in addition to the in-scope children who were reported to CPS, 616,500 more children countable under the original definitions are recognized by professionals at these various non-CPS agencies.

The third and fourth columns give the recognition patterns and reporting rates, respectively. That is, the third column gives the overall patterns of recognition, indicating the total number of in-scope children recognized in each type of agency; the fourth column shows the proportion of all recognized children who were reported to CPS.

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[8] When CPS knew about an in-scope child, the CPS dataform provided information about the source of the report to CPS. This was the basis (together with the priority system described above) for classifying the case into a specific row in the "Reported to CPS" column, with the exception that, for counties with large CPS agencies, and sometimes when the source of report to CPS was unknown, it was possible to take into account the non-CPS agency category represented by any duplicate dataforms which had been submitted.

Patterns of Recognition for Cases Under Original Definitions. Noninvestigatory, or "Level 3," agencies recognized an estimated 722,000 children who countable as maltreated by original standards. This was more than two times the estimated 171,700 children who were recognized by the "Level 2" investigatory agencies, a difference which was statistically significant. Within the Level 2 sector, police/sheriff's departments recognized the greatest number of maltreated children (an estimated 96,700 nationwide), which was significantly more than had been recognized by agencies in the probation/courts category (i.e., 45,700). There was no statistical difference between the number of children recognized as maltreated by probation/courts and the number recognized by public health departments (i.e., 29,300). Within the Level 3 sector, agencies fell into three strata based on their recognition of maltreated children. The first strata consisted of public schools, which recognized by far the greatest number of maltreated children (539,600 children nationwide). Social services agencies and hospitals comprised the second strata, recognizing 87,400 and 50,900 children, respectively, totals which were not statistically different. Finally, the fewest maltreated children were recognized by day care centers and mental health agencies--which respectively recognized 24,400 and 19,700 in-scope children.

Agency Differences in Reporting Rates for Cases Under Original Definitions. The final column in Table 6-4 presents the proportion of recognized cases which were offically reported to CPS. The final row provides the finding noted earlier, concerning the overall reporting rate: Of all cases countable under original definitions, 40% had been officially reported to and accepted for investigation by CPS. The row entitled "Total, All Study Agency Sources" indicates the overall reporting rate across all the types of agencies that had been represented in the non-CPS component of the study. For the represented categories of agencies, taken together, of all the cases they recognized which had been countable under original definitions, 31% had been reported to (and accepted for investigation by) CPS.

Level 2 and Level 3 agencies differed in their tendency to report and have CPS investigate the cases they recognized.[9] Investigatory agencies reported (and had investigated) an estimated 44% of the cases they recognized, while noninvestigatory agencies reported (and had investigated) only about 28% of their recognized cases--a difference which approached significance (i.e., had a less than 10 percent chance of stemming solely from sampling error). Within the set of investigatory agency categories, maltreated children encountered by police/sheriff's departments were most likely to appear among CPS reports accepted for investigation, while there was no statistical difference in the reporting rates for probation/courts and public health departments. Among noninvestigatory agencies, hospitals and mental health agencies had the highest rates of reporting (66% and 56%, respectively), and did not reliably differ in the rates at which their recognized cases appeared in the CPS report base. At the opposite end of the reporting spectrum, schools and daycare centers had the lowest rates (24% and 16%, respectively). The reporting rates of schools and daycare centers did not statistically differ from each other, but agencies in both of these categories were significantly less likely to report (and have CPS investigate) their recognized cases than either hospitals or mental health agencies. Due to the great variability in reporting rates for social services agencies, the overall reporting rate for these agencies was not reliably different from that of any other agency category.

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[9] Note that because the study can only credit cases as "Known to CPS" if they were reported to and accepted for investigation by CPS, the difference here (as well as other differences in "reporting rates") may be due to differences in submitting reports to CPS, differences in CPS screening of agencies' reports, or to both.

In general, these reporting rates are remarkably low. A majority of the recognized cases are reported and accepted for investigation by CPS for agencies in only three of the eight categories (police/sheriff's departments, hospitals, and mental health agencies). In fact, public schools, which are the single greatest source of reports to CPS concerning countable cases, have more countable cases unreported (409,700) than are reported to and investigated by CPS for all referral sources combined (409,400).

Above, and throughout this section, it was noted that the screening out of cases by CPS agencies prior to investigation would tend to underrepresent the actual reporting rates for non-CPS agencies. Here, it should be noted that there are also upward distortions on the reporting rates for some of the agency categories. Apart from reasons which apply generally to all agency categories and which are discussed in the final chapter, the reporting rates given here for schools, probation/courts, and mental health are especially likely to overstate the actual level of reporting by these agencies. This is because the study estimates of unreported children in these categories represented a more limited set of agencies than the full set of those which contributed reported cases to CPS during the study. For example, the estimate regarding unreported cases from schools represents unreported cases from public schools, whereas the estimated CPS reports from schools undoubtedly includes reports from both public and private. The study provided no basis for estimating the number of unreported cases from private schools, so the total unreported cases from schools which is shown in the table is incomplete in that respect. Similarly, the estimate of unreported children from mental health agencies/facilities was based on public mental health clinics, while the estimate for reports to CPS from agencies in this category included all mental health clinic sources, both public and private. Finally, the study representation of probation/courts consisted solely of a single, nonsampled, agency in this category (the county Juvenile Probation Department), whereas the the estimate of children reported to CPS from probation/courts includes reports both from this agency and from any other courts/probation agencies (such as the adult probation department, adult and juvenile parole departments, family and criminal courts, the District Attorney or county prosecutor's office, and so forth).

It is clear from the findings given here that a majority of children who are recognized as abused and neglected by community professionals do not enter the CPS report base. Indeed, considering the reporting rates in Table 6-4, one could say that the *vast majority* of such cases remain *unreported* and/or uninvestigated.

Revised Definitions:

Table 6-5 parallels Table 6-4, but provides the corresponding information for cases countable under the revised definitions. The first column offers a break-down of the "known to CPS" entry under revised definitions. It indicates that agencies of the kind studied in the non-CPS component of the NIS-2 were estimated to have reported a total of 420,800 children who were countable by revised standards. Other CPS reporting sources accounted for the remaining 311,500 children reported to that agency. The second column shows the distribution of the total "Known only to Non-CPS" across the different study reporting sources. The total of unreported cases from these sources was estimated to be 852,400 children nationwide.

Patterns of Recognition for Cases Under Revised Definitions. Total numbers of cases fitting the revised standards which were recognized in different categories of agencies are given in the third column of Table 6-5. Except for the fact that the numerical totals are all higher under the revised definitions, the findings here precisely parallel those described above for the original definitions. Level 3 agencies recognized significantly more cases countable by revised definitions than did Level 2 agencies. Specifically, noninvestigatory agencies recognized

Table 6-5. Rate of reporting to CPS by source: cases countable under revised definitions

Source of Information to CPS and/or Study[b]	Estimated No. In-Scope Children[a]: Reported to CPS[c] (A)	Not Reported to CPS (B)	Total Recognized by Source (C)	Proportion Reported to CPS (A/C)
Investigatory Agencies:				
Probation/Courts	15,500	46,700	62,200	0.25
Police/sheriff	115,400	67,300	182,700	0.63
Public Health	10,200	34,600	44,800	0.23
Subtotal:	141,100	148,600	289,700	0.49
Other Study Agencies:				
Hospitals	52,700	24,100	76,800	0.69
Schools	172,000	548,100	720,100	0.24
Daycare Centers	4,200	32,300	36,500	0.12
Mental Health	13,300	9,700	23,000	0.58
Social Services	37,500	89,600	127,100	0.30
Subtotal:	279,700	703,800	983,500	0.28
Total, All Study Agency Sources:	420,800	852,400	1,273,200	0.33
Other Sources:				
DSS/Welfare Department	43,300	?	43,300	?
Other professional agency	11,300	?	11,300	?
All other sources	256,900	?	256,900	?
Subtotal:	311,500	?	311,500	?
Total, All Sources:	732,300	852,400	1,584,700	0.46

[a] Total number of children rounded to the nearest 100; not adjusted by population totals.

[b] Priority classification. See Section 6.2.2. Each row represents children over and above those in previous rows. Children reported to CPS by some study source are classified only in the "reported to CPS" row for that source.

[c] Includes children identified to the study both by participating non-CPS agencies and by CPS as well as children identified to the study only by CPS where source of report to CPS was a non-CPS agency of the type included in the study design (e.g., police, hospital, school, etc.).

an estimated 983,500 children, which is nearly three times the number recognized by the investigatory agencies. The distributions within each Level across the specific agency categories also followed the pattern reported above for recognized cases countable with original definitions: Among investigatory agencies, significantly more cases were recognized by police/sheriff's departments (182,700 children), and the totals estimated for probation/courts and for public health departments (62,200 and 44,800, respectively) did not statistically differ from each other. The specific types of noninvestigatory agencies had the same rank ordering here under the revised definitions as was described above for cases countable under the original definitions: Schools recognized by far the greatest number of countable cases (720,100), significantly more than either social services (127,100) or hospitals (76,800), which in turn did not statistically differ from each other; daycare centers and mental health agencies recognized the fewest countable cases (36,500 and 23,000, respectively) and agencies in these last two categories did not statistically differ in the totals they recognized.

Agency Differences in Reporting Rates for Cases Under Revised Definitions. The last column in Table 6-5 gives the reporting rates, by agency, for cases countable under revised standards. As reported in an earlier section, 46% of all the cases which were countable under revised definitions had been officially reported to and investigated by CPS--a figure reiterated in the last row of this table. Note that, across all the agency sources which were represented in the study, the combined reporting rate is given here as 33%.

Again, the pattern under the revised definitions closely parallelled that under the original definitions. Investigatory agencies reported (and CPS investigated) a significantly greater proportion of the cases they recognized (49% vs. 28% for noninvestigatory agencies). Among the categories of investigatory agencies, police/sheriff's departments had a significantly higher reporting rate (63%) than either probation/courts (25%) or public health departments (23%), and the reporting rates for latter two agency categories did not statistically differ. In the noninvestigatory agency sector, the highest reporting rates were again evidenced by hospitals and mental health agencies (69% and 58%, respectively) and these were not statistically different, while schools and daycare centers had similar reporting rates which were significantly lower (24% and 12%, respectively). Social services agencies retained their highly variable reporting rates, and so did not reliably differ from any of the other types of noninvestigatory agencies.

As with the original definitions, the reporting rates were generally low, with the same three categories of agencies (police/sheriff's departments, hospitals, and mental health agencies) the only categories to officially report and have CPS investigate a majority of the cases they recognized. Note, however, that under the revised definitions, public schools lost their standing as the single greatest source of reports to CPS concerning countable cases--with the number of maltreated children reported by the general public, as reflected in the category "all other sources."

It is important to recognize that the degree of subjectivity in defining cases of abuse and neglect which is inherent in the revised definitional standards makes it difficult to discern the meaning of the findings given in this section. It would not be surprising, for example, if what was considered to be "endangerment" systematically varied across the different agency categories, with more stringent requirements applied by some types of professionals and more lenient assumptions used by others. If true, the reporting rates given for the different agency categories would not be comparable, as they would be based on different standards of evidence. Note, however, that the patterns of reporting under both definitional standards were remarkably similar. This suggests that whatever subjective variations there were in revised definitional standards, they did not overshadow some basic differences in reporting patterns across the different types of agencies.

6.2.3 Changes in Recognition and Reporting Since 1980

This section examines changes since 1980 in three areas: sources of reports to CPS, the ability of agencies in the different categories to recognize cases countable under the original definitions, and reporting rates by agency category.

Changes in Sources of Reports to CPS:

Earlier, it was noted that there had been a significant overall increase in cases countable under the original definitions which were reported to and accepted for investigation by CPS (see Section 6.1.1). Here, this increase is broken down by source. Specifically, Table 6-6 indicates how the sources of reports accepted by CPS have changed in the 1980-1986 interval.

Table 6-6. Changes since 1980 in sources of reports to CPS

Source of Information to CPS and/or Study[b]	Estimated No. In-Scope Children Reported to CPS[a]		
	1980	1986[c]	Difference[d]
Investigatory Agencies:			
Probation/Courts	9,900	10,200	300
Police/sheriff	21,900	59,300	37,400[*]
Public Health	2,300	6,800	4,500
Subtotal:	34,100	76,300	42,200[*]
Other Study Agencies:			
Hospitals	19,800	33,500	13,700
Schools	44,800	129,900	85,100[*]
Mental Health	8,800	11,000	2,200
Social Services	6,700	22,500	15,800[*]
Subtotal:	80,100	196,900[e]	116,800[*]
Total, All Study Agency Sources:	114,200	273,200	159,000[*]
Other Sources:			
DSS/Welfare Department	11,800	16,700	4,900
Other professional agency[f]	11,400	9,600	- 1,800
Daycare Centers[e]	-	4,000	4,000
All other sources[g]	66,300	105,900	39,600[*]
Subtotal:[g]	89,500	136,200	46,700[*]
Total, All Sources:[g]	203,700	409,400	205,700[*]

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[a] Total number of children rounded to the nearest 100; not adjusted by population totals.

[b] Tabulated in accordance with the priority system described in Section 6.2.2.

[c] Corresponds to column A in Table 6-4, with the exception noted in footnote e, below.

[d] In order to adjust for population differences, all significance tests were performed on incidence rate estimates (see Appendix E.

[e] Daycare centers are classified under "other professional agency sources" in this table in order to conform to their treatment in the NIS-1.

[*] Difference between 1980 and 1986 incidence rate estimates was significant at $p < .05$.

[g] Test for significance of difference excluded daycare centers.

It compares the estimates which were given earlier in the first column of Table 6-4 with the corresponding estimates from the reanalysis of the NIS-1 data.[10] The table shows that reports accepted by CPS increased significantly at all Levels: More than twice as many children were received and accepted from investigatory agencies (Level 2) in 1986, (i.e., 76,300 children, compared to 34,100 children in 1980). The number of children reported by noninvestigatory agencies also more than doubled in the 1980-1986 interval, increasing from 114,200 in 1980 to 273,200 in 1986. Reports accepted by CPS from other sources (i.e., those outside the scope of the study) were more than 50% above their 1980 level, having increased from 89,500 in 1980 to 136,200 in 1986.

Within the investigatory, Level 2, agencies, the increase in reports was only significant for police/sheriff departments, which provided CPS with nearly three times as many children in 1986 as they had in 1980. Among the noninvestigatory, Level 3, agencies, increases were significant only for schools and social services agencies. Reports to CPS from schools nearly tripled since the 1980 study, and reports from social services agencies were more than three times their 1980 estimate. The only category within the "Other sources" sector to report significantly more children to CPS in 1986 was category which reflected the general public (i.e., "all other sources"). Reports from this source increased by nearly 60% since 1980. Note that this category reflects Level 4 sources in the model described in Chapter 2.

Whether these shifts in sources of reports received and accepted by CPS reflect any reliable changes in the numbers of cases recognized by the different types of agencies or in the tendency to report cases that are recognized is considered in the next two sections.

Changes in Patterns of Recognition:

Previous chapters have explored various facets of the overall increase in cases countable under the original definitions. Here, this increase is examined by agency category to determine whether discernable changes in recognition levels occurred for all sources or for only a few sources. Table 6-7 compares the estimates presented earlier in the third column of Table

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[10] Statistical comparisons were actually done on incidence rate estimates, so as to adjust for any differences in population totals at the two points in time. Also, daycare centers are placed under "other sources" in this table, in order to conform with their treatment in the NIS-1, where they had been included as part of "other professional agency sources."

Table 6-7. Changes since 1980 in sources of total recognized cases countable under the original definitions

Source of Information to CPS and/or Study[b]	Estimated No. In-Scope Children Recognized by any source[a] 1980	1986[c]	Difference[d]
Investigatory Agencies:			
Probation/Courts	41,600	45,700	4,100
Police/sheriff	52,100	96,700	44,600[*]
Public Health	8,800	29,300	20,500[^]
Subtotal:	102,500	171,700	69,200[*]
Other Study Agencies:			
Hospitals	35,300	50,800	15,500
Public Schools	348,400	539,700	191,300
Mental Health	27,900	19,700	- 8,200
Social Services	21,500	87,400	65,900
Subtotal:	433,100	697,600[e]	264,500[^]
Total, All Study Agency Sources:	535,600	869,300	333,700[*]
Other Sources:			
DSS/Welfare Department	11,800	16,700	4,900
Other professional agency	11,400	9,600	- 1,800
Daycare Centers[e]	-	24,400	24,400
All other sources	66,300	105,900	39,600[*f]
Subtotal:	89,500	156,600	67,100[*f]
Total, All Sources:	625,100	1,025,900	400,800[*f]

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[a] Total number of children rounded to the nearest 100; not adjusted by population totals.

[b] Tabulated in accordance with the priority system described in Section 6.2.2.

[c] Corresponds to column C in Table 6-4, with the exception noted in footnote e, below.

[d] In order to adjust for population differences, all significance tests were performed on incidence rate estimates (see Appendix E).

[e] Daycare centers are classified under "other professional agency sources" in this table in order to conform to their treatment in the NIS-1.

[f] The significance test excluded daycare centers from the total for NIS-2.

[*] Difference between 1980 and 1986 incidence rate estimates was significant at $p < .05$.

[^] Statistically marginal difference: difference between 1980 and 1986 incidence rate estimates were not significant, but $p < .10$.

6-4 with the corresponding estimates from the reanalysis of the NIS-1 data.[11] (Note that the "Other sources" section in this table is only known through reports to CPS and so is identical to that given in Table 6-6. Since discussion of this section was given above, it is not reiterated here).

There was a significant increase in the number of children recognized as abused or neglected by investigatory agencies, and this reflected a significant in increase in children recognized by police/sheriff's departments. There was also a nonsignificant but marginal increase in the number of children recognized by noninvestigatory agencies overall, but this increase could not be localized within any of the specific types of noninvestigatory agencies.

Changes in Reporting Patterns:

Earlier, it had been reported that of all children recognized as abused or neglected, 40% had been reported to and investigated by CPS in 1986, and that this reflected a nonsignificant increase since 1980, when 33% had been reported and investigated. Table 6-8 gives the 1986 reporting rates by agency type (from Table 6-4) and compares these with the corresponding rate of reporting estimated from the 1980 data. This table indicates that, among the types of non-CPS agencies included in both studies, the overall rate of reporting increased from 0.21 in 1980 to 0.31 in 1986, but that this increase was not statistically significant. In fact, only one agency category evidence a statistically meaningful increase in its reporting rate--the rate of reporting by mental health agencies increased from 31% to 56%. This increase was statistically marginal, meaning that it had a less than 10 percent chance of stemming solely from sampling error (rather than the less than 5 percent chance, which is traditionally required for a difference to be considered statistically significant).

These results suggest that the overall increase in the number of cases countable under original definitions among children who are reported to CPS does not stem from any general increase in the tendency for community professionals (or even all combined sources) to

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[11] Again, statistical comparisons adjusted for differences in population totals, and daycare centers were classified under "other sources" to conform to their treatment in the NIS-1.

Table 6-8. Changes since 1980 in rate of reporting to CPS by source (cases countable by original definitions)

Source of Information to CPS and/or Study[b]	Proportion of In-Scope Children Reported to CPS[a]		
	1980	1986[c]	Difference
Investigatory Agencies:			
Probation/Courts	0.24	0.22	-0.02
Police/sheriff	0.42	0.61	+0.19
Public Health	0.26	0.23	-0.03
Subtotal:	0.33	0.44	+0.11
Other Study Agencies:			
Hospitals	0.56	0.66	+0.10
Schools	0.13	0.24	+0.11
Mental Health	0.31	0.56	+0.25[*]
Social Services	0.31	0.26	-0.05
Subtotal:[d]	0.19	0.28[e]	+0.09
Total, All Study Agency Sources:	0.21	0.31	+0.10
Other Sources:			
DSS/Welfare Department	?	?	-
Other professional agency	?	?	-
Daycare Centers[d]	?	0.16	-[d]
All other sources	?	?	-
Subtotal:	?	?	-
Total, All Sources:	0.33	0.40	0.07[e]

[a] (Number of in-scope children reported to CPS)/(Total in-scope Children Recognized as Maltreated)

[b] Tabulated in accordance with the priority system described in 6.2.2.

[c] Corresponds to the last column in Table 6-4, with the exception noted in footnote e, below.

[d] Daycare centers are classified under "other professional agency sources" in this table in order to conform to their treatment in the NIS-1.

[e] The significance test excluded daycare centers from the total for NIS-2.

[*] Statistically marginal difference: difference between 1980 and 1986 incidence rate estimates were not significant, but p < .10.

report and have CPS investigate the cases they recognize. Although reporting rates have, as shown in this table, increased slightly, these increases were not statistically reliable.

6.3 Summary

The results described in this chapter included the following noteworthy findings:

Concerning All Cases Reported to CPS, Countable and Not Countable:

- The dramatic rise in reports to CPS that has been reported by other researchers was confirmed. The number of children reported to CPS increased nearly 57% since 1980. In 1986, CPS received reports concerning nearly one and two-thirds million children.
- In 1986, CPS either considered indicated or officially substantiated about 53% of the cases for which it received and investigated reports.

Concerning Cases Countable Under Original Definitions:

- Among all those cases known to CPS, 25% were countable under original study definitions.
- An estimated 39% of all cases substantiated or indicated by CPS were countable under the original study definitions.
- Noninvestigatory, or Level 3, agencies recognized more than two times the number of countable children recognized by investigatory (Level 2) agencies.
- Among investigatory agencies, police/sheriff's departments recognized the greatest number of countable children (an estimated 96,700 nationwide); probation/courts and public health departments did not differ in their recognition of maltreated children.
- Among noninvestigatory agencies, the ordering of the different types of agencies according to the numbers of countable children they recognized was: schools > social services = hospitals > daycare centers = mental health agencies.
- Of the cases countable under original study definitions only 40%, or 6.5 children per 1,000, were known to CPS through official screened-in reports.
- Of all the countable cases recognized by agencies of the types included in the study, only 31% had been reported to and accepted by CPS.

- Investigatory agencies reported (and CPS investigated) about 44% of the cases they recognized, whereas noninvestigatory agencies reported (and CPS investigated) only about 28% of their recognized cases.

- Within the investigatory agency sector, police/sheriff's departments had the highest reporting rates, while reporting rates for probation/courts and public health departments were lower and not different from each other.

- Among noninvestigatory agency types, the categories were rank-ordered on the basis of their reporting rates as follows: hospitals = mental health > schools = daycare centers. Social services agencies exhibited highly variable reporting rates which did not reliably differ from the reporting rates of any other agency category.

Concerning Cases Countable Under Revised Definitions:

- About 44% of the children reported to and screened-in CPS were countable under revised study definitions.

- An estimated 73% of all cases substantiated or indicated by CPS were countable by revised study standards, which was substantially more than the 39% that were countable under the original definitions. This reflected the fact that virtually all of the cases officially substantiated by CPS were defined as meeting the revised harm requirement.

- Of the cases countable under the revised definitions, only 46% of those countable (or 11.6 children per 1,000) were known to CPS through official reports.

- The different agency categories showed the same relative patterns of recognition for cases defined by revised definitions as they had when cases were defined by the original standards: Noninvestigatory > investigatory agencies; police/sheriff > probation/courts = public health; schools > social services = hospitals > daycare centers = mental health.

- Of the cases countable under revised definitions, 46%, had been reported to CPS and screened-in by that agency.

- Of all the countable cases recognized by agencies of the types included in the study, only 33% had been reported to and accepted by CPS.

- Agency differences in reporting rates showed patterns similar to those for original definitions: Investigatory agencies reported more of the cases they recognized, (49% vs. 28% for the noninvestigatory agencies); police/sheriff > probation/courts = public health; hospitals = mental health > schools = daycare centers (and social services too variable to reliably differ from any other category).

Concerning Changes in Reporting, Substantiation, and Recognition Since 1980:

- A significantly greater proportion of cases reported to (and screened-in by) CPS were countable in 1986 than had been countable in 1980 (i.e., 25% vs. 19%), indicating that there has been an increase in selecting cases into CPS (although it could not be said whether this was due to greater selectivity by respondents or due to increased screening by CPS).

- The proportion of cases which CPS either considered indicated or officially substantiated increased significantly (from about 43% to 53%). Again, it was not clear whether this increase reflected an increased awareness by reporters concerning which cases to report to CPS or an increased selectivity by CPS agencies as to which reports to accept for investigation.

- The proportion of unfounded CPS cases which were countable under the original study definitions increased slightly but significantly since 1980, raising some concern about an increasing tendency to exclude cases which in the past would have received intervention and services.

- The rise in countable cases of child abuse and neglect occurred principally among those cases officially known to CPS, where the incidence rate of countable cases more than doubled since 1980. (Unreported cases also increased, but their increase was not statistically significant.)

- Screened-in reports to CPS increased significantly at all levels of sources: investigatory agencies, noninvestigatory agencies, and other (i.e., nonstudy) sources.

- Among the investigatory agencies, only the number of screened-in reports from police/sheriff's departments increased significantly since 1980.

- Within the noninvestigatory agency sector, only schools and social services agencies showed significant increases in the numbers of reports they submitted to CPS (which CPS accepted for investigation).

- Among nonstudy sources, only the general public submitted significantly more screened-in reports to CPS in 1986 than in 1980.

- Taken together, investigatory agencies recognized significantly more children as abused/neglected in 1986. This reflected a significant increase in the recognition of maltreated children by police/sheriff's departments.

- There was a nonsignificant but marginal increase in the number of abused/neglected children recognized by noninvestigatory agencies.

- Among all cases which involved maltreatment countable by original standards, the proportion that was known to CPS showed no statistically reliable increase, indicating that the rate at which countable cases are officially reported to (and screened-in by) CPS did not change overall.

- Among the types of non-CPS agencies included in the 1980 and 1986 studies, the overall rate of reporting increased from 21% to 31% in the 1980-1986 interval, but this increase was not statistically significant.

- Reporting rates increased with some degree of reliability only for mental health agencies, where the increase in reporting rate from 31% to 56% emerged as statistically marginal.

7. SUMMARY AND CONCLUSIONS

The findings detailed in the previous chapters provide a comprehensive assessment of the incidence and distribution of child abuse and neglect in the U.S. This final chapter notes the key results of the study and discusses their implications.

7.1 Incidence of Child Abuse and Neglect

It was estimated that, in 1986, more than one million children nationwide (about 1,025,900) met the stringent requirement of having already experienced demonstrable harm as a result of abuse or neglect. These results represented a 64% increase in countable cases of abuse and neglect over the estimate of 625,100 provided by the 1980 incidence study (NIS-1). Only 40% of these children were known to CPS agencies through official, screened-in reports. The remainder were recognized as maltreated children by non-CPS professionals in various community agencies. This translates into an annual incidence rate of 16.3 children per 1,000 children in the nation who experienced demonstrable harm from abuse or neglect, of whom 6.5 children per 1,000 had been officially reported to CPS and accepted for investigation.

Even more children were identified as victims of abuse or neglect when the revised definitional standards were applied, which included children who had been endangered (but not yet demonstrably harmed) by abuse or neglect. By these standards, more than one and a half million children (about 1,584,700) were abused or neglected in 1986 throughout the U.S. Again, less than half (46%) had been officially reported to (and screened-in by) CPS agencies. The remainder were children who were recognized as maltreated by some community professional in non-CPS agencies like those recruited for this study. This reflects 25.2 children per 1,000 in the U.S. endangered or already harmed as a result of abuse or neglect, 11.6 of whom were known to CPS through official, screened-in reports to that agency.

These findings should not be interpreted as an estimate of the full extent of child abuse and neglect in the U.S., even for the kinds of cases meeting study definitions. As noted in Chapter 2, the study design only tapped into cases known to CPS and recognized by professionals in specific categories of investigatory and non-investigatory community agencies.

It made no attempt to assess the incidence of cases known to professionals in other agencies and institutions (e.g., private schools, private physicians, medical clinics not affiliated with hospitals or health departments, clinical social workers or mental health professionals in private practice, etc.). Nor did it attempt to identify cases known to neighbors, relatives, or parents and children themselves. In view of the high rate of unreporting for the cases identified to the study, it is probably reasonable to assume that most of the cases known by persons in these other sectors are not to be found among the screened-in CPS reports. Thus, the estimates provided by this study should be regarded as *minimum estimates* of the numbers of abused and neglected children.

Given that this study identified significantly more countable cases of abuse and neglect than the earlier incidence study (NIS-1), can it be concluded that the nationwide incidence of child abuse and neglect significantly increased in the interim between 1980 and 1986? The answer to this question depends on whether or not there are other plausible explanations (i.e., competing explanations) for the study results. Two other potential explanations warrant discussion--changes since the NIS-1 in study methodology, and changes in the likelihood that cases of maltreatment will be recognized as such by potential reporters.

Changes In Study Methodology. Since the study reported here departed from the NIS-1 design in a variety of ways (See Section 2.6), it is theoretically possible that these higher estimates reflect an improved capability of identifying cases of abuse and neglect. Upon closer examination, however, this explanation cannot account for the observed NIS-1 vs. NIS-2 differences.

First, three of the six methodological changes should have affected *only the numbers of cases identified in the non-CPS sector of the study.* The expanded set of non-CPS agency categories brought cases into the scope of the study from an extended range of non-CPS professionals. The introduction of an explicit means of correcting for poor and incomplete participation applied only to non-CPS participants, and so reduced the downward distortions of estimates in this sector, but not in the CPS sector of the study. Finally, the use of revised definitions dramatically expanded the reporting guidelines for non-CPS participants (who were instructed to be on the lookout for cases which met study definitions), but would not have had this effect on the number of cases identified from CPS, where eligible cases were identified as incoming reports accepted for investigation.

These three methodological changes should have *only* affected the numbers of countable cases known to non-CPS professionals, and should have had no bearing on estimates of cases officially known to CPS (and not duplicated by non-CPS study reports). Note, however, that the NIS-1 and NIS-2 differences were actually stronger in the CPS sector of the database than among the in the cases known only to non-CPS professionals (where estimates were not significantly different). Thus, the three modifications in study procedure described above cannot explain the finding concerning the overall increase since 1980 in the incidence of countable child maltreatment.

Second, two of the methodological changes from NIS-1 procedures should not have had any systematic effect on estimates in one direction or the other: The more extensive use of sampling strategies and the abbreviated time frame should not have biased the estimates upward (or downward). In fact, the increased use of sampling increased the sampling error associated with current estimates and so actually made it more difficult to discern differences since 1980. Thus, the fact that the observed differences in fact did emerge is even more noteworthy when the extensive use of sampling is taken into account.

Third, the remaining methodological change which could have had substantive bearing on the level of estimated incidence was the method of county sampling used in the current study. Compared to the NIS-1, the NIS-2 better represented the larger and more populous counties in the nation. If there are higher rates of child abuse and neglect (i.e., higher per capita incidence of countable cases and not just higher numbers of countable cases) in the more populous counties, then the higher national estimates of countable cases in the present study could reflect the improved representation of these counties. However, analyses did not confirm the existence of this type of relationship between the metropolitan status of the county and incidence rates of abuse and neglect.[1]

The above considerations make it unlikely that the 1980 vs. 1986 differences stem from any of the methodological differences between the two studies.

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[1] Thus, differences between the two samples of counties cannot explain the overall 1980-1986 difference in the incidence of countable cases. However, as discussed in Section 5.7.2, such county sample differences may partially account for the result reported in that section, which showed that the size of the 1980-1986 difference was greater in large urban and urban counties than in rural counties.

Changes in Recognition. Does the increase in countable cases known to the study mean that the actual occurrence of cases of child abuse and neglect have increased since 1980, or is it that community professionals are more likely to recognize cases than they were in 1980. As discussed in Chapter 3, the fact that the increase in countable maltreatment occurred principally for cases involving moderate injuries/impairments suggests that this latter explanation is a plausible interpretation of the findings reported here. That is, the increase in countable cases may have reflected an increase in the likelihood that professionals will recognize maltreatment rather than an increase in the actual occurrence of maltreatment (i.e., in incidence per se). This inference is based on the assumption that cases which involve highly noticeable harm, such as fatal or serious injury/impairment would have been recognized at close-to-ceiling level in 1980, so that their numbers should not appreciably increase as professionals improve their ability to recognize abuse and neglect. Cases involving moderate injury, however, should increase with improved recognition--which accords with the pattern of findings that emerged in this study. Thus, it seems reasonable to suggest that the findings reported here do not necessarily imply an increase in the actual incidence of child abuse and neglect in the nation, but are consistent with the suggestion that, in the interim since 1980, professionals have become better attuned to the cues of maltreatment (particularly to cues concerning physical and sexual abuse--the two areas where estimates were significantly above their 1980 levels, and especially for the older children--since increases were more pronounced in the older age groups).

7.2 Distribution of Child Abuse by Type and Severity

Children who had experienced demonstrable harm (i.e., were countable under original definitions) were approximately equally divided into those who had been abused and those who had been neglected, with abused children slightly outnumbering those who were neglected.[2] When endangered children were added to their numbers (i.e., when revised definitions were used), neglected children outnumbered abused children by a ratio of about 3:2. Another way of regarding these findings is to note that the number of children defined as abused was not remarkably increased when endangered children were added to those who had already experienced harm (i.e., 9.2 vs. 10.7), but the number of neglected children essentially doubled when endangered children were included vs. when they were not (7.9 vs. 15.9). Clearly, many children are recognized as having had inadequate care who have not yet evidenced any injury impairment as a result of their neglect. Given that the definition of "endangerment" was not standardized, but was left to the discretion of study respondents, it is difficult to assess the implications of these figures. That is, one cannot determine whether the inadequate care experienced by these additional children warranted preventive measures or whether it merely reflected discrepancies in standards of care applied by some respondents vis a vis the standards exercised by some parents or caretakers.

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[2] A given child who was both abused and neglected was counted in each classification.

Among children who had been abused, by either set of definitional standards, the most frequent form of maltreatment was physical abuse (53% of those abused), followed by emotional abuse (30%), which in turn was only slightly more prevalent than sexual abuse (24%). This translates into 4.9 children per 1,000 who were harmed by physical abuse in 1986 (increasing to 5.7 per 1,000 when those endangered are added), 2.8 children per 1,000 who were harmed or demonstrably impaired by emotional abuse (increasing to 3.4 when those endangered are included), and 2.2 sexually abused children per 1,000 under the more stringent criteria (2.5 per 1,000 with the addition of endangered children).

In contrast to the patterns for abuse, the distribution of neglected children across the subcategories of neglect depended on which definitional standard was used. When demonstrable harm was required, educationally neglected children far outnumbered those who had been physically neglected (58% vs. 37%) or those who had been emotionally neglected (10%). When children who had been endangered but not yet harmed were included in the estimates, those who had been physically neglected far outnumbered both educationally neglected children (57% vs. 29%) and emotionally neglected children (22%). These shifts in the relative predominance of the neglect subcategories indicates the differential impact of including children considered to have been endangered by neglect. The numbers of children educationally neglected remained virtually the same under both definitional standards, but there was a three-fold increase in the number of physically neglected children and a four-fold increase in the number of emotionally neglected children. The stability of the incidence of educational neglect reflects the fact that it was primarily defined on the basis of objective circumstances under both sets of definitions.[3] The fact that large numbers of children were considered endangered (but not yet harmed) by emotional and physical neglect may, as noted above, reflect the potential scope of these problems and have preventive implications, or it may stem from reasonable disagreements about the standards of adequate emotional and physical care.

As noted above, the increase in incidence estimates since the 1980 study primarily reflected a significant increase in the incidence of abuse. The rate of abuse in 1986 was 74% greater than it had been in the 1980 study, involving 9.2 children per 1,000. Among abused children, there were significant increases in those physically and those sexually abused. Physical abuse increased by 58% over its 1980 level, while sexual abuse in 1986 occurred *at more than triple its 1980 rate*. Only the category of moderate injuries demonstrated changes since the NIS-1, increasing 89% relative to its 1980 rate. As discussed above, this can be interpreted as an indication that the increases since 1980 have primarily been increases in *recognition*, rather than in the actual occurrence of maltreatment.

7.3 Relation of Abuse and Neglect to Child, Family, and County Characteristics

Of the child, family, and county characteristics discussed in Chapter 4, three had no effect on maltreatment countable under the original study definitions--child's race/ethnicity, family size, and county metrostatus. Race/ethnicity and county metrostatus were also not associated with maltreatment countable under the revised definitions. All other characteristics did show some relationship to the incidence or type of maltreatment and/or injury/impairment.

Under both the original and the revised definitions, the child's sex affected maltreatment. Specifically, females experienced more abuse than did males (13.1 per 1,000 females vs. 8.4 per 1,000 males),[4] reflecting primarily a greater vulnerability to sexual abuse. There were 3.9 sexually abused females per 1,000 compared to 1.1 sexually abused males per 1,000. This higher rate of female sexual abuse was associated with a greater likelihood of female children experiencing "probable" injury/impairment--a category of harm that was more frequently assigned in cases of sexual abuse.

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[3] Children whose circumstances met the requirements of educational neglect were automatically ascribed a rating of moderate harm under the original, stringent standards. The standards applying to this category of maltreatment remained essentially the same under the revised definitional standards (See Table 4-1).

[4] Where definitional standards are not specified, as here, the reader can assume that estimates are for original definitions.

The incidence of abuse, particularly of physical abuse, increased with age; this increase essentially reflected the lower frequency of abuse among 0-2 year olds compared to children in the other age brackets. When the youngest children were abused, however, they were more likely than older children to experience fatal injury, reflecting their greater vulnerability to physical harm. The distribution of moderate injuries/impairments was similar to that of abuse and this level of harm was more prevalent in the older age brackets. The only form of neglect to vary with age was educational, due in large part to the fact that this category was only defined for children of school-age under both sets of definitional standards. There was, however, some tendency toward a higher incidence of educational neglect among the 15-17 year olds, at least under the revised definitions.

Family income had wide-ranging effects on both the incidence and severity of child maltreatment. Children from families earning less than $15,000 in 1986 were more likely than those from higher income families to experience maltreatment and injury. Whether under original or revised definitions, there were extensive differences between the groups, with the lower income children always experiencing the greater frequency of maltreatment or injury. It is notable that these dramatic income-related differences occurred using a very rough binary categorization of family income level, with no adjustment to into account factors likely to obscure its effects, such as family size or poverty level differences between the two study-years.

Finally, under revised study definitions, family size was found to be associated with the incidence of maltreatment. Specifically, children from larger families (i.e., those with four or more children) had higher estimated incidence of both abuse and neglect than did their counterparts from smaller families, and were more likely to be regarded as endangered.

In considering the implications of relationships found between the estimated incidence of maltreatment and these various child and family characteristics, the distinction between the occurrence of maltreatment and its recognition warrants some discussion. This study (and, in fact, any research on the subject of child maltreatment) cannot distinguish with absolute certainty between those characteristics which are related to the actual occurrence of maltreatment (and therefore constitute what is generally meant by "risk factors") and those related only to the recognition of maltreatment (and therefore factors which may affect perceptions of the problem, rather than its actual occurrence). However, there are sometimes cues in the patterns of results which indicate whether a factor may be related more to the recognition of maltreatment than to its occurrence.[5] There are indications that in at least three cases, the relationships that emerged in this study may have involved recognition more than actual occurrence.

First, the increase in the relationship between age and abuse (specifically physical and sexual abuse) in the interim since 1980 raised the question as to whether it had been between the child's age and recognition of these forms of abuse (moreso than between age and the actual occurrence of physical or sexual abuse). On the one hand, it seems reasonable to suppose that true risk factors, which at least partially reflect aspects of the context and dynamics that precipitate maltreatment, should be relatively slow to change over time, while factors relating more to the tendency to recognize maltreatment might be expected to show change as rapidly as public perceptions can be affected. On the other hand, as discussed above, there are independent indications that the overall increases in the incidence of maltreatment since 1980 is primarily one of increased recognition, rather than increased occurrence. To be consistent, when these increases occurred disproportionately in the higher age groups they should still be interpreted as increases in recognition, rather than as increases in the actual occurrence of maltreatment.

Second, note that these same arguments would apply to the findings concerning county metrostatus. If the disproportionate increases in the incidence of maltreatment for the urban counties is not merely an artifact of the differences in county samples in the two studies (a possibility noted above), then they too are best interpreted as disproportionate increases in recognition in the more urban counties. Third, it was observed that the fact that children in the larger families were more likely to be regarded as endangered might plausibly account for all the other differences they exhibited in the incidence of countable maltreatment, since perceived endangerment would allow more of these children to be countable across the various types of maltreatment.[6]

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[5] A given factor could, of course, be related to both recognition and occurrence.

[6] Also note that since they were not more likely to be injured/impaired in other ways, they probably were not more likely to actually experience maltreatment acts/omissions.

What are the implications of deciding that certain characteristics are linked more to the recognition of maltreatment than they are to its actual occurrence? This decision has an important bearing on the design of prevention and public education strategies. In general, deciding that a characteristic relates more to the recognition of maltreatment than to its occurrence should lead one to direct more resources to the still unrecognized sectors, whereas deciding that a characteristic relates to the occurrence of maltreatment should direct prevention and services to sectors where occurrence is greatest. For example, concluding that observers are now more likely to recognize sexual and physical abuse of older children implies that sexual and physical abuse of younger children may still go undetected, and efforts can be focused on improving recognition in this area. The conclusion that recognition rates have possibly increased more in the more urban counties than in the rural areas might imply that public education programs in the rural areas have not kept pace with those in the more metropolitan locales, and efforts could be directed toward clarifying the status of public education in rural areas and upgrading it where it is indicated to be needed.

7.4 Reporting and Substantiation

Several studies,[7] including the one reported here, have now systematically confirmed what most people in child protective services have known from personal experience--reports to CPS concerning suspected cases of child abuse and neglect have substantially (and significantly) increased since 1980. The NIS-1 and NIS-2 estimates are especially informative in this regard, since they represent *unduplicated* counts of children reported to a nationally representative sample of local CPS agencies. As reported in Chapter 6, an estimated 1,657,600 children were reported to CPS in 1986, reflecting an increase of nearly 57% since 1980 in the numbers of officially reported children.

There has been a great deal of speculation as to the reason for the dramatic increase in the number of CPS reports. At least three alternative explanations have been offered:

- Actual incidence is up--More children who are now *being* abused or neglected;

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[7] **See Chapter 6, footnote 2.**

- Recognition is up--Those children who are abused or neglected are now *more* likely to be *recognized* as such;
- Reporting rates are up--Those children who are recognized as abused or neglected are now more likely to be *reported* than they were in the past;

In section 7.1 above, the first and second explanations were considered, and the evidence from the NIS-2 was seen as more strongly supporting the second explanation--that people are now more likely to recognize cases of child maltreatment (especially those involving physical or sexual abuse and those leading to moderate injuries/impairments). Here, the NIS-2 evidence concerning the third explanation (i.e., reporting rates) is evaluated.

To being with, note that no change in reporting rates can account for the overall increase in countable cases found in the present study. That is, more than simply a change in rate of reporting cases to CPS must have occurred in the interim between the NIS-1 and NIS-2. Had this been all that had occurred, one would have merely seen a shift in the distribution of the total countable study cases without much change in the overall total--the proportion known to CPS would have increased while the proportion known only to non-CPS professionals would have decreased. Clearly, the number known to non-CPS professionals did not decrease--in fact, it increased (although not significantly). Thus, the overall increase in the number of countable cases indicates that more than simply a change in reporting rates has occurred. As discussed above, it is most consistent with the assumption that more cases are now being recognized than had been in the past.

Granted that there cannot *simply* have been an increase in reporting rates, have reporting rates increased at all? It is, after all, possible for both recognition and reporting rates to have increased. The evidence presented in this report has shown that, although the reporting rates for respondents included in the study design have increased over their 1980 rates, the increase was not statistically significant. The lack of any appreciable change in reporting rates is especially disconcerting in view of their overall low levels, which indicates that the majority of children recognized as maltreated still fail to enter the CPS report base. In 1980, of all children countable under original study definitions, 33% had been reported to CPS and accepted for investigation. The percentage increased to 40% in 1986, but this increase was not significant. When one considered only those children recognized by professionals at the types of non-CPS agencies which were studied, 21% had been reported and screened-in in 1980 and 31%

in 1986--again, an increase which proved to be nonsignificant (not statistically reliable). The increase in reporting rates approached significance only for mental health agencies, where the increase from 31% to 56% in the reporting of recognized cases proved to be statistically marginal.[8]

In the previous chapter, it was pointed out that the reporting rates given here are subject to different types of distortions--in both upward and downward directions. On the one hand, they could be over-estimates of the actual reporting rate for some of the agency categories, because there is an inherent linkage between the estimated reporting rate for a given agency category and the study's ability to identify unreported countable cases for agencies in the category. For this reason, the relatively higher rates of official reporting seen for police/sheriff's departments, for hospitals, and for mental health agencies may indicate that these agencies actually do report the cases they recognize to a greater extent than other agencies, or it may mean that the study procedures were relatively less successful at uncovering the unreported cases that exist in these categories of agencies. Similarly, the relatively low reporting rates for schools and daycare centers may mean that these agencies, relative to other agency categories, see substantially more cases that they do not report, or it may mean that the study did a relatively better job of uncovering the cases which were unreported in these types of agencies.

On the other hand, the reporting rates observed here may seriously under-estimate the actual reporting rates because there is also a linkage between the estimated reporting rate and the study's ability to determine whether CPS knew about recognized cases. Only those cases which were accepted for investigation by CPS could be classified as "known to CPS," and counted as cases officially reported. For this reason, relatively low reporting rates may mean that there is a substantial amount of screening-out of reported cases by CPS prior to any investigation. However, observe that, even if this occurred, the reporting rates given here would still validly reflect the numbers and proportions of children recognized as maltreated who receive CPS attention.

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[8] Limited time and resources constrained the initial analyses on the NIS-2 database to those reported here. Further analyses of could provide substantive insights on a number of important issues. For example, it would be informative to know what types of maltreatment and what levels of injury/impairment were involved in cases reported to (and screened in by) CPS vs. in those cases which did not receive CPS attention.

Overall then, the weight of the available evidence suggests that there has been an increase in the likelihood that abused and neglected children will be recognized, but that these children are not reliably more likely to appear among the screened-in reports to CPS than they were in 1980. That is, the majority of children who are recognized as maltreated (and who are countable by the study according to the demonstrable harm criterion) still do not receive CPS attention. What is not clear is the extent to which this is due to potential reporters failing to submit official reports on these children or to CPS agencies screening out reports that are submitted on these children. These alternatives have different policy implications.

If it is due to the failure of reporters, it would imply that the concerted efforts to educate non-CPS professionals as well as the public at large concerning the indicators of maltreatment have affected public perceptions, but they have not had comparable impact on public behaviors. Clearly, these education efforts have successfully increased recognition, especially of physically and sexually abused children, and particularly of maltreated older children. However, simply increasing the recognition of these children has clearly not been enough. In order to appreciably affect the likelihood that these children will be reported to CPS, those who recognize them as abused and/or neglected must be convinced of the benefits of officially reporting them to CPS.

If, instead, the failure is due to CPS screening-out reports on these children, then the blame must be placed on the inadequacy of the resources allocated to the problem. Some of the other findings reported here are consistent with this latter interpretation, as noted below. Among the children reported to CPS, a significantly greater proportion are now countable as maltreated under the original study definitions than had been countable in 1980. Moreover, a significantly greater proportion of reported children are now officially substantiated and/or judged to be indicated by CPS than had been substantiated/indicated in 1980. These findings imply that there is now greater selectivity concerning the kinds of cases that wind up being investigated by CPS. As noted earlier in this report, this study does not provide a basis for determining whether this increased selectivity is currently being imposed by reporters or by CPS. Note, however, that if reporters are currently the source, it must only be because they have learned (from CPS response to their reports) which cases are likely to be accepted for investigation and so be more restrictive about the kinds of cases they report in the first place. So whatever the current source of this selectivity, it inevitably must have derived from CPS using more stringent screening standards when accepting cases for investigation than had been used in 1980. The finding that a significantly greater proportion of the unfounded CPS cases are countable under the original study definitions[9] also suggests that CPS standards have, in the face of increased reports and decreased resources, become more restrictive. This context provides no basis for supporting the current high rate of recognition of maltreatment by community professionals and the public at large, and, as a result, may jeopardize the gains that have been made in this respect.

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[9] It also indicates that some of the children who would, in the past, have had their cases substantiated/indicated (and possibly received services as a result) are now excluded as unfounded.